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Water Resources Data for Oregon Water Year 1971. Part 1 Surface Water Records

(U.S.) Geological Survey, Portland, OR Water Resources Div

1972

PB 289308

1971

Water Resources Data for Oregon
Water Year 1971
Part 1. Surface Water Records

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UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-71-1

Prepared in cooperation with the State Engineer of Oregon
and with other agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

S	M	T	W	T	F	S
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JUNE 1971

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AUGUST 1971

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SEPTEMBER 1971

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26	27	28	29	30		

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16. Abstracts

Water resources data for the 1971 water year for Oregon consist of stage, discharge of streams, lakes, and reservoirs. This report contains discharge records for 277 gaging stations; stage only records for 2 gaging stations; stage and contents for 38 lakes and reservoirs. Also included are 12 low-flow and 170 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating local, State, and Federal agencies in Oregon.

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17c. COSATI Field/Group

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Water Resources Data for Oregon Water Year 1971

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-71-1

Prepared in cooperation with the State Engineer of Oregon
and with other agencies

Prepared in cooperation with

State Engineer of Oregon
Oregon State Board of Higher Education
Oregon State Game Commission
Oregon State Highway Commission
Burnt River Irrigation District
County of Coos, Board of Commissioners
County of Douglas, County Court
County of Lane, Board of Commissioners
City of Astoria
City of Coos Bay-North Bend, Water Board
City of Eugene, Water and Electric Board
City of McMinnville, Water and Light Department
City of Portland, Bureau of Water Works
City of The Dalles
City of Toledo
Forest Service, U.S. Department of Agriculture
Corps of Engineers, U.S. Army
Bonneville Power Administration, U.S. Department of the Interior
Bureau of Land Management, U.S. Department of the Interior
Bureau of Reclamation, U.S. Department of the Interior
Fish and Wildlife Service, U.S. Department of the Interior
Environmental Protection Agency, U.S. Department of the Interior
Weather Bureau, U.S. Department of Commerce

Water resources records, 1971, for Oregon are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Oregon
   Part 1: Surface Water Records

2. Water Resources Data for Oregon
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 3202
Portland, Oregon 97208

1972

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WATER RESOURCES DATA FOR OREGON, 1971

PART 1. SURFACE WATER RECORDS

INTRODUCTION

Surface-water records for the 1971 water year for Oregon, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report and their locations shown in figure 1. Records for a few pertinent gaging stations in bordering states also are included. The records were collected and computed by the Water Resourced Division of the U.S. Geological Survey under the direction of S. F. Kapustka, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Oregon.

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. Records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oregon have had cooperative agreements for the systematic collection of surface-water records since 1905. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

State of Oregon, C. L. Wheeler, State Engineer
Oregon State Game Commission, John W. McKean, Director.
Oregon State Board of Higher Education, Roy E. Lieuallan, Chancellor
Oregon State Highway Commission, G. L. Jackson, Chairman.
Coos, Douglas, and Lane Counties.
Cities of Astoria, Coos Bay-North Bend, Eugene, McMinnville, Portland, The Dalles, and Toledo.
Burnt River Irrigation District.

Assistance in the form of funds or services was given by the Forest Service, U.S. Department of Agriculture; Corps of Engineers, U.S. Army; Bonneville Power Administration, Bureau of Reclamation, Fish and Wildlife Service, Environmental Protection Agency, and Bureau of Land Management, U.S. Department of the Interior; Weather Bureau, U.S. Department of Commerce; Eugene Water & Electric Board; Pacific Power & Light Co.; Portland General Electric Co.; Idaho Power Co., Idaho; Cowlitz County & Clark County Public Utility Districts, Washington.

DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot(AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile(CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second(cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height(G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeable with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Runoff in inches(IN.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from man-made changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade(IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream.

Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each idention representing one rank.

As an added means of identification each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 14335500, includes the part number"14" and a 6-digit station number. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consists of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods.

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1971 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figures to have little significance. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised: "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures; it is the total cubic feet per second per day for the month. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX"and "MIN" give the maximum and minimum daily discharges, respectively for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas or if the average rainfall on the drainage basin is usually less than 20 inches.

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table the monthly summary gives the contents at the end of the month, rather than the elevation or gage height. The yearly summary gives the change in contents for the calendar year and for the water year.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Oregon for the period October 1960 to September 1965 are in Water-Supply papers 1927, 1929, 1931, 1934, and 1935.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1314(10), 1315-B (11-A), and 1315-A(11-B), 1317(13), 1318(14); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1734(10), 1735(11), 1737(13), 1738(14). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Monthly records for several ungaged sites are given in a separate section following the gaged sites. The accuracy of records for ungaged sites is generally lower than those for gaged sites, depending on the precision of the computation method and the accuracy of data used in the computations.

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in Oregon through 1967 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected in Oregon at other sites during the current water year by other State and Federal agencies. The Office of Water Data Cordination, Water Resources Division, U.S. Geological Survey, Washington, D. C. 20242, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

HYDROLOGIC CONDITIONS

Streamflow for October, November, and December was near normal for the State except in the John Day and Wilson River basins during November and December.

During period January 11th to the 17th runoff was excessive for the State. A new maximum daily discharge was recorded for January at the Umpqua River near Elkton gaging station.

For the period March to September runoff was near normal for the State except for the Umpqua and Wilson River basins which were well above normal for this period.

SELECTED REFERENCES

Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.

Corbett, D. M., and others, 1943, reprinted 1957, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

Langbein, W. B. and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

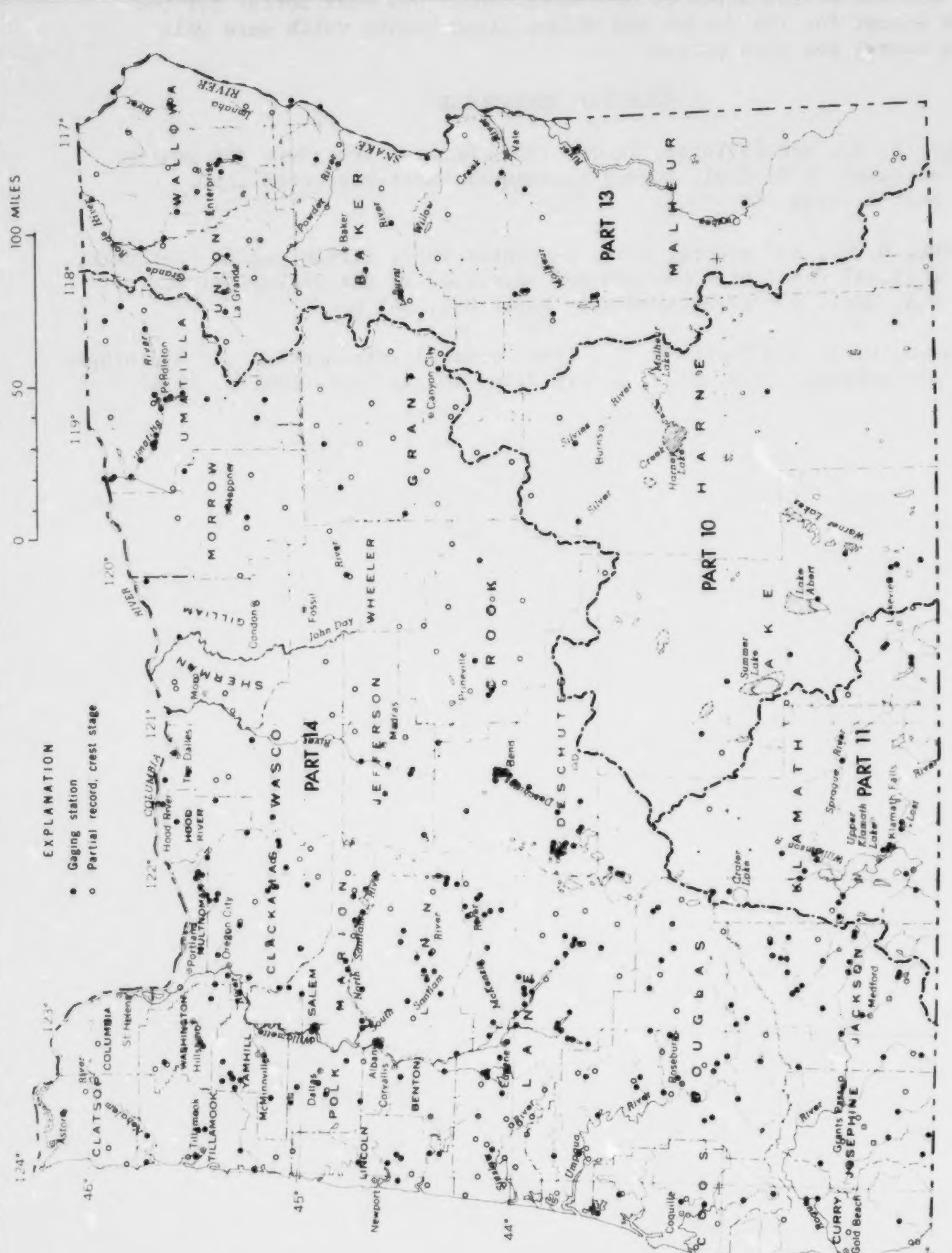

Figure 1.-Map of Oregon showing location of gaging stations.

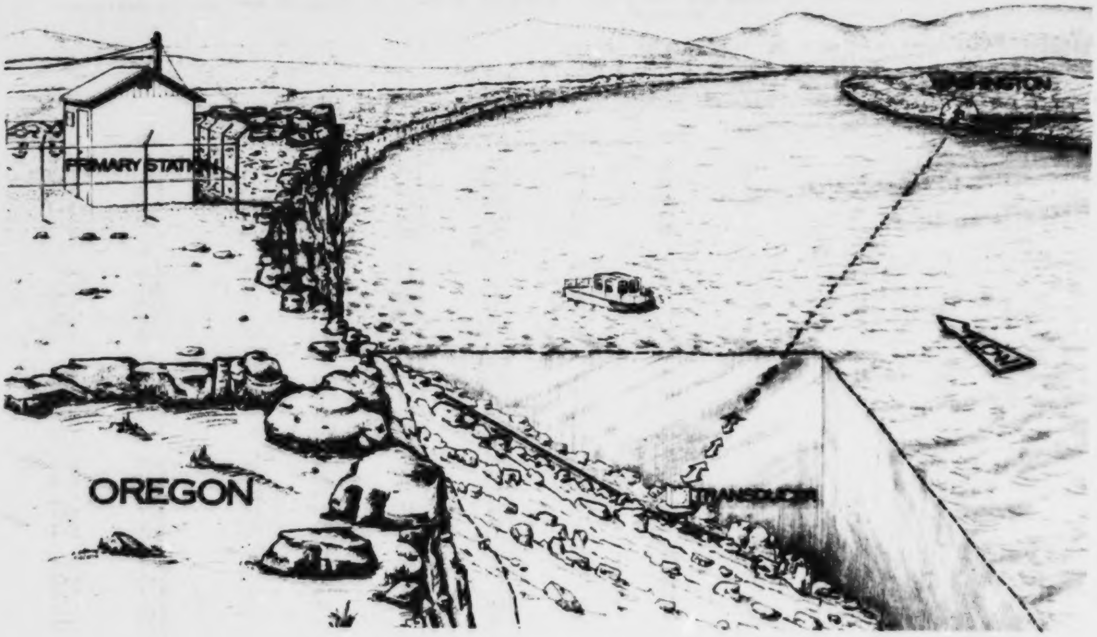

Figure 2.--General view of the acoustic velocity meter gaging station on the Columbia River at The Dalles, Oregon, in the upper reach of Bonneville reservoir. The acoustic path at this site crosses the river at an oblique angle of about 53 degrees and has a length of 1,320 feet. An underwater transducer is installed on each side of the river at approximately 0.4 of the depth below the minimum water surface.

WARNER LAKES BASIN

10366000 Twentymile Creek near Adel, Oreg.

LOCATION (revised).--Lat 42°04'20", long 119°57'42", in SW¼NW¼ sec.25, T.40 S., R.23 E., Lake County, on left bank 1.5 miles downstream from Twelvemile Creek and 8 miles southwest of Adel.

DRAINAGE AREA.--194 sq mi, including 46 sq mi in Cowhead Lake area.

PERIOD OF RECORD.--March 1910 to July 1916, December 1917 to September 1919, and March 1921 to June 1922 (published as "near Warner Lake"), September 1940 to November 1944, March 1945 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,560.83 ft above mean sea level. Prior to Sept. 21, 1940, nonrecording gage or water-stage recorder at sites within 1 mile downstream at various datums. Sept. 21, 1940, to Nov. 30, 1944, water-stage recorder at site 1.8 miles upstream at different datums. Mar. 12, 1945, to June 28, 1952, water-stage recorder at site 70 ft upstream at datum 0.88 ft higher.

AVERAGE DISCHARGE.--36 years (1910-15, 1918-19, 1940-44, 1945-71), 51.4 cfs (37,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,180 cfs Jan. 17 (gage height, 14.00 ft); minimum, 4.0 cfs Oct. 5.
Period of record: Maximum discharge, 3,670 cfs Dec. 23, 1964 (gage height, 16.1 ft), from rating curve extended above 920 cfs on basis of contracted-opening measurement of 3,260 cfs; no flow at times.

REMARKS.--Records fair. Some regulation by pumpage from Cowhead Lake. Diversions in Oregon for irrigation above station; considerable diversions for irrigation in Cowhead Lake area in California.

REVISIONS (WATER YEARS).--WSP 1090: 1945. WSP 1514: 1951-53, 1954(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	6.0	21	14	81	30	264	140	1,390	71	9.5	5.3
2	4.7	6.0	20	13	88	20	300	142	1,270	66	9.0	5.3
3	4.4	6.0	19	11	52	20	304	210	712	65	8.5	5.7
4	4.4	6.0	21	10	46	22	302	405	340	57	7.5	5.7
5	4.4	9.5	28	10	46	26	324	280	268	47	7.0	5.7
6	4.4	11	201	11	42	26	330	230	238	56	7.0	5.7
7	4.7	10	402	12	35	26	220	270	218	40	7.0	6.5
8	4.7	8.0	316	13	35	26	154	682	220	38	6.5	6.0
9	4.7	14	178	14	37	26	170	465	214	35	6.5	6.0
10	4.7	30	59	14	67	30	170	320	218	37	6.5	5.7
11	4.7	22	39	14	102	32	132	276	200	35	6.0	5.3
12	4.7	32	24	14	128	35	152	270	178	32	6.0	5.3
13	4.7	28	20	13	118	35	152	260	172	30	6.0	5.3
14	4.7	14	15	13	125	33	330	220	164	28	6.0	5.3
15	4.7	9.5	14	12	138	29	220	216	152	26	5.7	5.3
16	4.7	8.5	11	30	116	28	172	200	146	24	5.7	5.7
17	5.0	8.5	10	2,410	104	28	184	156	138	23	5.7	5.7
18	5.0	8.0	8.5	2,550	96	30	180	140	136	22	6.0	5.7
19	5.0	8.0	8.0	1,180	85	35	152	137	128	26	5.3	5.7
20	5.3	6.5	8.0	640	88	56	150	125	125	24	5.3	5.7
21	5.7	7.0	8.0	258	81	96	156	110	122	20	5.3	5.7
22	6.0	7.0	8.0	148	84	687	186	118	112	19	5.3	6.0
23	6.0	11	8.0	116	84	2,000	136	125	108	16	5.7	5.7
24	7.0	152	8.5	94	88	1,320	120	144	96	14	6.0	5.7
25	6.0	152	9.0	81	74	899	160	180	101	12	5.7	5.7
26	6.0	95	8.5	77	76	1,400	351	180	160	12	5.7	7.5
27	6.0	31	8.0	74	68	644	125	200	144	11	5.7	9.0
28	5.7	23	8.5	73	46	514	131	192	206	10	5.3	7.5
29	5.3	22	9.5	68	------	581	132	341	91	9.5	5.3	10
30	5.3	22	10	69	------	535	138	390	77	9.0	5.3	13
31	6.0	------	12	77	------	332	------	725	------	9.0	5.3	------
TOTAL	159.3	773.5	1,520.5	8,133	2,230	9,601	5,997	7,849	7,844	923.5	193.3	188.4
MEAN	5.14	25.8	49.0	262	79.6	310	200	253	261	29.8	6.24	6.28
MAX	7.0	152	402	2,550	138	2,000	351	725	1,390	71	9.5	13
MIN	4.4	6.0	8.0	10	35	20	120	110	77	9.0	5.3	5.3
AC-FT	316	1,530	3,020	16,130	4,420	19,040	11,900	15,570	15,560	1,830	383	374

CAL YR 1970 TOTAL 25,421.0 MEAN 69.6 MAX 1,620 MIN 2.0 AC-FT 50,420
WTR YR 1971 TOTAL 45,412.5 MEAN 124 MAX 2,550 MIN 4.4 AC-FT 90,080

PEAK DISCHARGE (BASE, 510 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	1900	5.28	599	5- 3	2300	5.38	644
1-17	1900	14.0	3,180	5- 8	1700	7.53	1,360
3-23	2000	11.6	2,400	6- 1	2100	11.04	2,440
4-26	0100	5.38	644				

WARNER LAKES BASIN

10370000 Camas Creek near Lakeview, Oreg.

LOCATION (revised).--Lat 42°12'59", long 120°06'05", in SE¼NE¼ sec.3, T.39 S., R.22 E., Lake County, on left bank 0.2 mile downstream from Blue Creek and 12 miles east of Lakeview.

DRAINAGE AREA.--63 sq mi, approximately.

PERIOD OF RECORD.--September 1912 to November 1914, March to May 1915, December 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,472.41 ft above mean sea level (State Highway Department bench mark). Sept. 11, 1912, to May 9, 1915, water-stage recorder or nonrecording gage at site 500 ft upstream at different datum.

AVERAGE DISCHARGE.--23 years (1912-14, 1950-71), 46.6 cfs (33,760 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 620 cfs Jan. 18 (gage height, 3.90 ft); maximum gage height, 4.85 ft Jan. 17 (ice jam); minimum discharge, 5.0 cfs Oct. 28, 29.

Period of record: Maximum discharge, 3,190 cfs Dec. 23, 1964 (gage height, 7.32 ft), from rating curve extended above 410 cfs on basis of slope-area measurement of peak flow; minimum, 0.90 cfs Aug. 16, 1960.

REMARKS.--Records fair. No regulation. Diversions for irrigation above station.

REVISIONS.--WSP 410: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	8.4	22	45	77	36	140	299	287	52	12	8.0
2	5.7	8.1	22	35	75	40	146	322	245	45	11	8.0
3	5.7	8.4	25	30	59	47	154	348	211	41	11	8.0
4	5.7	8.7	30	30	59	47	161	480	182	38	10	8.5
5	5.7	13	39	30	55	49	180	488	167	34	10	9.0
6	5.7	18	65	32	52	51	229	383	150	32	10	9.5
7	5.9	17	78	35	46	44	245	428	140	30	10	10
8	5.9	16	78	40	44	45	215	477	132	29	10	9.5
9	5.9	46	76	40	40	40	261	536	126	28	10	9.0
10	6.3	44	70	40	59	36	305	502	144	30	9.2	8.0
11	6.1	40	65	40	74	40	231	477	126	26	9.0	7.5
12	6.1	47	55	38	80	33	191	494	112	26	9.0	7.5
13	5.9	30	55	35	89	41	197	498	103	23	9.0	7.5
14	5.9	22	55	35	86	42	241	407	95	22	8.5	7.3
15	5.9	20	50	30	92	38	269	365	88	20	8.0	7.3
16	5.9	16	40	63	76	34	265	360	82	18	8.0	7.3
17	5.9	14	35	300	74	35	265	283	77	18	7.8	7.3
18	6.6	13	30	560	66	38	235	263	71	18	7.5	7.3
19	8.4	13	30	431	61	40	215	247	83	19	7.5	7.3
20	7.4	12	30	440	67	36	219	227	72	18	7.0	7.6
21	8.4	12	30	330	61	42	185	207	65	17	7.0	7.6
22	8.4	14	32	259	65	69	178	197	59	17	7.0	7.6
23	10	50	32	179	61	200	162	191	55	15	7.0	8.7
24	11	298	30	140	59	191	144	184	51	15	7.0	7.8
25	9.8	221	30	113	41	167	140	197	59	14	7.0	7.8
26	8.7	96	30	104	38	219	180	213	105	13	7.0	11
27	7.6	54	30	99	35	170	205	265	105	13	7.0	15
28	7.8	40	35	90	35	170	219	263	103	13	7.5	14
29	7.8	40	39	82	------	193	245	310	76	12	7.5	18
30	9.1	24	45	81	------	215	285	308	61	12	8.0	15
31	8.4	------	51	80	------	166	------	291	------	12	8.0	------
TOTAL	218.7	1,263.6	1,334	3,886	1,726	2,614	6,307	10,510	3,432	720	264.5	273.9
MEAN	7.05	42.1	43.0	125	61.6	84.3	210	339	114	23.2	8.53	9.13
MAX	11	298	78	560	92	219	305	536	287	52	12	18
MIN	5.7	8.1	22	30	35	33	140	184	51	12	7.0	7.3
AC-FT	434	2,510	2,650	7,710	3,420	5,180	12,510	20,850	6,810	1,430	525	543

CAL YR 1970 TOTAL 19,284.5 MEAN 52.8 MAX 540 MIN 4.8 AC-FT 38,250
WTR YR 1971 TOTAL 32,549.7 MEAN 89.2 MAX 560 MIN 5.7 AC-FT 64,560

PEAK DISCHARGE (BASE, 290 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	2100	3.60	505	5-10	0300	3.86	620
1-18	1500	3.90	620	5-29	2000	3.40	452
4-10	0200	3.13	383				

10371000 Drake Creek near Adel, Oreg.

LOCATION (revised).--Lat 42°12'00", long 120°00'41", in NE¼SW¼ sec.9, T.39 S., R.23 E., Lake County on right bank 800 ft downstream from highway bridge and Parsnip Creek, 1 mile upstream from mouth, and 6.5 miles west of Adel.

DRAINAGE AREA.--67 sq mi, approximately.

PERIOD OF RECORD.--March to May 1915, December 1922 to May 1923, December 1949 to December 1964, October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,075.94 ft above mean sea level (State Highway Department bench mark). Mar. 18 to May 10, 1915, and Dec. 21, 1922, to May 9, 1923, nonrecording gage at site 800 ft upstream at different datums. Dec. 16, 1949, to June 21, 1951, at site 1,300 ft upstream at different datum. June 22, 1951, to Dec. 23, 1964, at site 20 ft upstream at datum 0.48 ft higher.

AVERAGE DISCHARGE.--20 years (1950-64, 1965-71), 14.4 cfs (10,430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,370 cfs Mar. 23 (gage height, 4.33 ft); minimum, 0.80 cfs Dec. 29.
Period of record: Maximum discharge, 6,210 cfs Dec. 23, 1964 (gage height, 8.9 ft, present datum), result of slope-area measurement; minimum, 0.40 cfs Jan. 11, 1963, result of freezeup.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation by two reservoirs above station with combined capacity of 436 acre-ft. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1564: 1923. WSP 1714: Drainage area. WSP 1927: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	8.2	6.5	6.0	43	11	53	45	40	14	12	12
2	7.6	8.2	6.5	5.5	46	11	61	50	35	13	12	12
3	7.6	8.2	7.0	5.0	28	12	64	52	33	13	12	12
4	7.6	8.2	7.6	4.5	18	12	63	54	31	12	12	12
5	7.6	10	10	5.5	18	12	78	56	30	12	12	12
6	7.6	10	49	6.5	18	12	101	58	27	12	12	12
7	7.6	9.4	69	7.0	19	12	80	60	25	12	12	12
8	7.6	8.8	66	8.0	18	12	46	64	22	12	12	12
9	7.6	12	50	9.0	17	12	50	68	21	12	12	12
10	7.6	10	39	10	22	12	55	70	25	12	12	11
11	7.6	9.4	22	10	25	16	43	68	24	14	13	11
12	7.6	10	21	9.0	42	17	37	70	22	14	13	11
13	7.6	8.2	14	8.0	61	14	35	68	22	14	13	11
14	7.6	8.2	10	7.0	40	14	61	62	21	14	13	11
15	7.6	8.2	8.8	8.8	40	12	59	60	20	13	12	11
16	7.6	8.2	8.0	13	25	12	42	54	19	12	12	11
17	7.6	8.2	7.0	410	20	14	40	50	18	12	12	12
18	8.2	7.6	5.0	805	17	16	36	45	18	12	12	12
19	8.2	7.6	3.5	658	14	14	34	40	18	12	12	12
20	8.2	7.6	3.5	358	16	12	32	38	17	12	12	12
21	8.2	7.6	3.7	92	16	16	30	35	16	12	12	12
22	8.8	8.2	4.0	53	13	47	28	33	16	12	12	12
23	8.8	8.8	3.8	27	13	554	25	31	15	12	12	12
24	8.8	16	3.6	22	14	480	23	30	14	12	12	12
25	8.2	34	3.5	22	16	242	22	28	15	12	12	12
26	8.2	18	3.6	22	15	335	25	27	18	12	12	14
27	7.6	10	3.8	25	14	131	28	27	21	12	12	14
28	8.8	8.5	4.0	25	12	140	34	30	19	12	12	14
29	8.2	7.5	4.6	25	------	210	38	35	16	12	12	16
30	7.6	7.0	6.4	27	------	175	40	40	15	12	12	16
31	8.2	------	6.4	32	------	66	------	42	------	12	12	------
TOTAL	245.2	301.8	460.8	2,725.8	660	2,655	1,363	1,490	653	385	376	367
MEAN	7.91	10.1	14.9	87.9	23.6	85.6	45.4	48.1	21.8	12.4	12.1	12.2
MAX	8.8	34	69	805	61	554	101	70	40	14	13	16
MIN	7.6	7.0	3.5	4.5	12	11	22	27	14	12	12	11
AC-FT	486	599	914	5,410	1,310	5,270	2,700	2,960	1,300	764	746	728

CAL YR 1970 TOTAL 5,632.4 MEAN 15.4 MAX 425 MIN 3.5 AC-FT 11,170
WTR YR 1971 TOTAL 11,682.6 MEAN 32.0 MAX 805 MIN 3.5 AC-FT 23,170

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	1700	4.03	1,100	--	--	[a]3.18	515
3-23	1700	4.33	1,370				

[a] Occurred between May 27 and June 10.

NOTE.--No gage-height record Apr. 17 to June 9.

10371500 Deep Creek above Adel, Oreg.

LOCATION (revised).--Lat 42°11'21", long 120°00'02", in SW¼NW¼ sec.15, T.39 S., R.23 E., Lake County, on left bank 700 ft downstream from Drake Creek and 5 miles west of Adel.

DRAINAGE AREA.--249 sq mi.

PERIOD OF RECORD.--September 1922 to September 1923, October 1929 to current year. Monthly discharge only October 1929 to September 1932, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 4,980.34 ft above mean sea level (State Highway Department bench mark). Sept. 8, to Dec. 20, 1922, nonrecording gage. Dec. 21, 1922, to Sept. 30, 1923, and Oct. 11, 1929, to Dec. 23, 1964, water-stage recorder at site 700 ft downstream at different datums. Jan. 20, to Sept. 30, 1965, nonrecording gage at site 2,000 ft downstream at different datum.

AVERAGE DISCHARGE.--43 years, 127 cfs (92,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,580 cfs Jan. 18 (gage height, 5.22 ft); minimum, 16 cfs Oct. 27, 28.
Period of record: Maximum discharge, 9,420 cfs Dec. 23, 1964 (gage height, 10.64 ft, from floodmark), from rating curve extended above 1,100 cfs on basis of slope-area measurements at 7.3 ft and of peak flow; minimum, 1.7 cfs July 20, 27-29, 1934.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	65	80	250	85	435	692	1,350	298	38	24
2	21	27	60	70	250	90	460	746	1,070	274	37	24
3	21	30	60	60	180	104	470	818	818	238	35	25
4	20	32	68	50	171	93	480	1,130	692	216	32	29
5	20	40	104	55	180	97	545	1,170	626	189	31	32
6	20	61	226	60	165	99	650	935	590	180	30	32
7	22	50	358	70	147	90	662	1,010	608	171	27	35
8	23	44	378	75	138	86	560	1,220	632	150	26	33
9	24	139	310	80	135	86	632	1,400	650	135	25	30
10	25	135	220	80	171	86	710	1,220	722	141	25	29
11	24	90	202	80	220	97	565	1,150	686	127	25	29
12	24	108	132	80	234	97	490	1,200	602	119	25	29
13	23	70	135	70	270	86	490	1,260	580	106	24	27
14	22	58	135	65	246	86	614	1,050	565	90	24	27
15	22	56	108	60	270	77	632	986	530	84	23	27
16	22	47	97	63	206	81	620	935	510	81	22	27
17	22	40	80	1,520	202	75	680	770	485	77	22	27
18	25	40	70	3,240	186	72	620	692	495	77	22	27
19	30	31	60	2,170	147	77	565	662	490	77	21	29
20	27	31	60	1,580	156	77	565	608	455	79	21	29
21	32	33	65	830	130	94	515	550	430	72	21	29
22	33	43	70	608	150	246	505	540	390	68	21	30
23	35	75	65	480	150	1,620	440	565	378	61	21	30
24	40	567	60	390	141	1,500	390	590	350	56	22	30
25	35	905	60	338	97	886	382	680	362	53	22	29
26	30	346	60	310	85	1,110	485	728	698	48	22	38
27	27	180	65	294	80	668	500	851	650	45	22	47
28	25	144	70	262	80	626	515	812	550	44	22	44
29	27	141	75	238	------	776	565	1,220	405	41	23	54
30	27	84	80	238	------	764	656	1,190	338	40	24	54
31	33	------	90	242	------	510	------	1,150	------	40	24	------
TOTAL	802	3,674	3,688	13,838	4,837	10,546	16,398	28,530	17,707	3,477	779	956
MEAN	25.9	122	119	446	173	340	547	920	590	112	25.1	31.9
MAX	40	905	378	3,240	270	1,620	710	1,400	1,350	298	38	54
MIN	20	27	60	50	80	72	382	540	338	40	21	24
AC-FT	1,590	7,290	7,320	27,450	9,590	20,920	32,530	56,590	35,120	6,900	1,550	1,900

CAL YR 1970 TOTAL 66,431 MEAN 182 MAX 2,700 MIN 12 AC-FT 131,800
WTR YR 1971 TOTAL 105,232 MEAN 288 MAX 3,240 MIN 20 AC-FT 208,700

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0300	3.73	1,340	5-29	1800	4.13	1,770
1-18	0200	5.22	3,580	6-10	1300	3.02	782
3-23	1700	4.76	2,890	6-26	2100	3.11	837
5- 8	2300	4.08	1,720				

10378500 Honey Creek near Plush, Oreg.

LOCATION.--Lat 42°25'30", long 119°55'20", in SW¼SW¼ sec.20, T.36 S., R.24 E., Lake County, on right bank 700 ft upstream from mouth of canyon, 1 mile northwest of Plush, and 4 miles downstream from Twelvemile Creek.

DRAINAGE AREA.--170 sq mi, approximately.

PERIOD OF RECORD.--May 1909 to September 1914 (prior to January 1910, gage heights only), March to May 1915, March to September 1921, March to June 1922, May 1930 to current year. Monthly discharge only May 1930 to September 1949, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 4,552.60 ft above mean sea level. Dec. 24, 1964 to Sept. 30, 1965, nonrecording gage at site 100 ft downstream at different datums. See WSP 1927 for history of changes prior to Dec. 24, 1964.

AVERAGE DISCHARGE.--45 years (1910-14, 1930-71), 29.7 cfs (21,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge not determined, occurred Mar. 22; minimum, 1.1 cfs Aug. 21.
Period of record: Maximum discharge, 11,000 cfs Dec. 23, 1964 (gage height, 13.4 ft, from floodmark), from rating curve extended above 250 cfs on basis of slope-area measurements at gage heights 10.46 and of peak flow; no flow at times.

REMARKS.--Records fair. Slight regulation by five small reservoirs (combined capacity, 870 acre-ft). Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1564: 1911-12. WSP 1714: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	4.8	13	10	59	28	88	295	444	53	6.6	1.9
2	1.7	4.4	10	9.5	56	28	80	328	342	46	6.6	2.2
3	1.4	4.4	8.0	8.8	40	29	88	340	262	43	5.2	2.3
4	2.0	4.0	7.2	9.0	43	29	90	405	224	40	4.8	2.4
5	1.4	3.6	16	9.0	44	29	106	411	208	37	4.6	2.3
6	1.4	6.0	33	9.5	40	29	150	310	176	31	3.9	2.3
7	1.7	7.2	59	10	36	30	190	322	164	30	3.7	2.5
8	2.5	7.0	61	11	36	32	174	384	160	30	3.7	2.7
9	2.2	7.2	49	10	35	32	170	459	158	30	3.7	2.5
10	2.0	18	40	9.5	43	28	212	390	188	33	3.3	2.3
11	2.0	12	38	8.5	60	32	164	381	168	35	3.0	2.2
12	1.9	15	45	7.5	60	36	150	399	148	32	2.9	2.3
13	1.8	12	60	7.0	66	23	148	447	134	30	2.4	2.7
14	1.8	8.0	35	10	64	26	202	360	126	27	2.3	2.6
15	1.7	8.4	26	16	66	28	260	335	120	25	2.0	2.5
16	1.8	7.8	22	17	51	26	230	330	113	24	1.5	2.6
17	1.9	7.4	21	280	54	29	248	260	108	21	1.4	2.6
18	1.9	7.2	19	718	49	26	222	240	108	19	1.2	2.2
19	2.0	7.2	14	465	40	25	200	232	112	23	1.2	2.1
20	2.9	6.2	12	372	40	25	200	214	95	23	1.1	2.2
21	3.2	6.2	10	190	36	60	160	198	89	19	1.1	2.3
22	3.6	6.8	9.5	131	44	250	160	190	84	18	1.4	2.6
23	3.7	7.8	9.0	107	40	500	170	186	79	16	1.5	2.5
24	5.6	18	9.0	83	40	300	150	182	77	14	1.8	2.3
25	5.2	101	9.0	70	32	192	170	192	74	11	1.6	2.3
26	4.6	46	9.5	69	30	240	270	216	106	10	1.5	3.6
27	3.9	30	10	65	29	122	210	302	119	7.8	1.5	5.0
28	3.3	27	12	60	28	102	210	298	98	7.4	1.4	4.8
29	3.6	24	14	56	------	150	240	409	74	7.2	1.6	6.0
30	3.7	23	13	58	------	146	290	432	61	7.2	1.7	7.4
31	4.8	------	11	54	------	95	------	396	------	7.4	1.8	------
TOTAL	83.3	447.6	704.2	2,940.3	1,261	2,727	5,402	9,843	4,419	757.0	82.0	86.2
MEAN	2.69	14.9	22.7	94.8	45.0	88.0	180	318	147	24.4	2.65	2.87
MAX	5.6	101	61	718	66	500	290	459	444	53	6.6	7.4
MIN	1.4	3.6	7.2	7.0	28	23	80	182	61	7.2	1.1	1.9
AC-FT	165	888	1,400	5,830	2,500	5,410	10,710	19,520	8,770	1,500	163	171

CAL YR 1970 TOTAL 13,757.70 MEAN 37.7 MAX 477 MIN .20 AC-FT 27,290
WTR YR 1971 TOTAL 28,757.60 MEAN 78.8 MAX 718 MIN 1.1 AC-FT 57,030

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-17	2100	6.00	975	5- 9	0400	5.22	598
3-22	--	--	--	5-29	1900	5.48	710
4-15	0300	4.33	318				

ABERT LAKE BASIN

10382000 Abert Lake near Valley Falls, Oreg.

LOCATION (revised).--Lat 42°36'13", long 120°11'09", in NW¼SE¼ sec.24, T.34 S., R.21 E., Lake County, 10 miles northeast of Valley Falls, on east shore of lake.

DRAINAGE AREA.--860 sq mi, approximately.

PERIOD OF RECORD.--October 1915 to September 1918 (fragmentary). October 1961 to current year. Fragmentary records for period 1919 to 1961 available in files of Portland district office.

GAGE.--Nonrecording gage. Datum of gage is 4,247.78 ft above mean sea level. Gage readings have been reduced to elevations above mean sea level. Prior to September 1961, nonrecording gage and various reference marks used, and September 1961 to July 3, 1963, water-stage recorder.

EXTREMES.--Current year: Maximum elevation observed, 4,260.10 ft July 27; minimum elevation observed, 4,254.88 ft Nov. 6.
Period of record: Maximum elevation observed, 4,260.60 ft June 22, 1958. Prior to 1905 a well defined beach line was formed at elevation 4,269.7 ft. Lake was dry in 1924; practically dry at times in 1926, 1930, 1931 and 1934.

REMARKS.--Records fair. Many diversions for irrigation on streams tributary to the lake. The lake has no outlet and the water is highly mineralized.

ELEVATION, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)
Nov. 6	4,254.88
Dec. 17	4,255.28
Feb. 5	4,256.13
Mar. 11	4,256.28
Apr. 23	4,257.48
June 7	4,259.58
July 27	4,260.10
Aug. 23	4,259.53
Sept.15	4,259.08
Sept.17	4,259.14

10384000 Chewaucan River near Paisley, Oreg.

LOCATION.--Lat 42°41'05", long 120°34'08", in SW¼NW¼ sec.26, T.33 S., R.18 E., Lake County, on left bank 1.2 miles downstream from Mill Creek and 1.4 miles southwest of Paisley.

DRAINAGE AREA.--275 sq mi.

PERIOD OF RECORD.--April 1912 to September 1921, May 1924 to current year. Published as "above Conn ditch, near Paisley" April to September 1912 and May 1924 to September 1955, as "above Mill Creek, near Paisley" October 1912 to December 1913, and as "at Chewaucan Land & Cattle Co.'s gage, near Paisley" January to September 1914.

GAGE.--Water-stage recorder. Datum of gage is 4,430 ft above mean sea level (river-profile survey). See WSP 1734 for history of changes prior to Oct. 6, 1956.

AVERAGE DISCHARGE.--56 years, 142 cfs (102,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,000 cfs May 27 (gage height, 5.37 ft); minimum, 32 cfs Sept. 17, 18.
Period of record: Maximum discharge, 6,490 cfs Dec. 22, 1964 (gage height, 8.35 ft), from rating curve extended above 900 cfs on basis of slope-area measurement of peak flow; no flow for part of each day Dec. 7, 1927, Dec. 12, 1932, result of freezeup.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

REVISION (WATER YEARS).--WSP 860: Drainage area. WSP 1927: 1957-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	46	140	70	236	105	360	774	1,190	316	88	42
2	35	46	110	75	232	100	400	830	1,010	296	74	39
3	34	46	100	83	172	100	412	980	886	272	66	42
4	35	47	122	70	208	100	445	1,210	830	253	64	42
5	35	62	166	60	208	105	500	1,260	760	236	58	42
6	35	100	312	55	187	110	582	1,140	725	225	57	40
7	35	81	408	55	155	128	600	1,260	760	211	57	43
8	36	69	324	60	160	115	565	1,400	809	211	56	42
9	37	115	239	65	160	115	666	1,400	830	194	57	38
10	37	102	169	70	208	122	767	1,400	844	218	57	37
11	38	104	178	70	239	135	618	1,400	809	184	56	36
12	37	135	102	75	242	135	545	1,470	760	166	54	39
13	36	76	135	75	260	136	520	1,520	760	152	52	37
14	35	68	160	75	242	140	540	1,400	704	135	51	36
15	35	71	142	90	288	128	594	1,360	672	128	47	36
16	35	61	130	200	225	106	600	1,360	642	118	46	37
17	35	58	102	570	242	100	654	1,150	624	110	42	33
18	39	54	90	1,180	208	100	550	1,080	630	112	39	33
19	46	51	85	1,060	190	110	510	1,030	618	125	42	35
20	44	47	75	964	184	125	530	996	565	110	38	39
21	48	52	65	545	160	148	510	900	545	104	35	40
22	47	56	60	445	197	222	470	865	505	83	39	42
23	61	96	65	408	175	572	455	916	495	94	38	42
24	65	780	70	348	187	660	430	956	455	88	38	42
25	53	830	60	332	148	555	416	1,070	455	85	37	42
26	48	360	60	308	135	753	470	1,080	600	83	35	50
27	40	246	60	288	120	435	510	1,120	515	79	37	58
28	46	200	60	264	110	420	545	2,050	416	66	38	62
29	48	208	60	242	------	510	600	1,500	376	66	37	90
30	46	190	60	242	------	470	690	1,380	336	66	37	90
31	52	------	65	236	------	360	------	1,290	------	76	39	------
TOTAL	1,288	4,457	3,974	8,680	5,478	7,390	16,054	37,547	20,126	4,662	1,511	1,326
MEAN	41.5	149	128	280	196	238	535	1,211	671	150	48.7	44.2
MAX	65	830	408	1,180	288	753	767	2,050	1,190	316	88	90
MIN	34	46	60	55	110	100	360	774	336	66	35	33
AC-FT	2,550	8,840	7,880	17,220	10,870	14,660	31,840	74,470	39,920	9,250	3,000	2,630

CAL YR 1970 TOTAL 74,229 MEAN 203 MAX 1,810 MIN 14 AC-FT 147,200
WTR YR 1971 TOTAL 112,493 MEAN 308 MAX 2,050 MIN 33 AC-FT 223,100

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0400	3.75	1,180	4-10	0100	3.40	900
1-20	0400	3.94	1,350	5-13	0800	4.25	1,640
3-23	2200	3.52	996	5-27	2300	5.37	3,000

10388000 Ana River near Summer Lake, Oreg.

LOCATION.--Lat 43°00'00", long 120°45'00", in SE¼ sec.6, T.30 S., R.17 E., Lake County, on left bank 300 ft downstream from diversion dam and 2 miles northeast of town of Summer Lake.

PERIOD OF RECORD.--October 1929 to September 1939 (river only); June to September 1928, April 1931 to July 1938, and April 1940 to September 1942 (irrigation season records for Summer Lake Canal only); June 1951 to current year. Prior to June 1951 monthly discharge only, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft (from plans of Ana River diversion dam). Oct. 1, 1929, to Sept. 30, 1939, at site 80 ft downstream at different datum.

AVERAGE DISCHARGE.--23 years (1930-32, 1935-36, 1951-71), 92.9 cfs (67,310 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 152 cfs Oct. 12 (gage height, 2.48 ft), no flow in canal; minimum, 3.0 cfs Oct. 30, 31; minimum daily, 3.0 cfs Oct. 31.

Period of record: Maximum discharge, 188 cfs Dec. 22, 1964 (gage height, 2.81 ft), no flow in canal; minimum, 1.0 cfs Jan. 21, 22, 1970; minimum daily, 3.0 cfs Oct. 31, 1970.

REMARKS.--Records good. All records presented herein include flow in Summer Lake Canal which diverts 300 ft above station for irrigation of lands along west side of Summer Lake. Flow regulated by gates at diversion dam. Source of stream is Ana River Springs, three-quarters of a mile above station, which are flooded over by pondage behind diversion dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	21	96	99	102	97	100	104	89	88	92	92
2	89	73	96	99	100	96	100	100	89	88	89	92
3	89	86	96	99	100	96	102	80	90	88	90	93
4	89	90	96	99	100	96	102	73	90	89	90	96
5	89	95	106	99	100	96	102	75	90	89	91	95
6	89	97	114	99	100	95	102	78	90	91	91	92
7	92	97	112	99	100	95	102	66	90	87	93	91
8	101	96	110	99	99	95	103	63	90	93	93	91
9	124	96	109	99	99	96	103	62	90	98	93	92
10	143	96	107	99	99	96	103	66	90	97	94	92
11	141	97	106	99	99	97	103	76	90	97	94	92
12	143	99	104	99	97	97	103	90	90	97	94	92
13	144	99	103	99	97	97	102	90	90	96	94	92
14	140	97	103	100	97	97	102	90	90	96	95	92
15	132	97	103	100	97	97	102	90	90	96	96	92
16	130	97	102	102	96	97	102	90	89	95	95	91
17	125	96	100	102	96	99	102	90	89	95	95	92
18	122	96	100	102	96	99	103	82	89	95	96	93
19	119	96	100	102	96	99	103	85	89	89	95	93
20	118	96	100	102	97	99	103	89	89	97	93	93
21	114	96	100	102	97	99	103	92	89	97	92	93
22	113	97	99	102	97	99	103	89	89	96	92	93
23	112	100	99	103	97	99	103	86	88	95	92	93
24	110	100	99	103	99	99	103	87	88	94	92	93
25	110	100	99	103	99	99	104	88	88	94	92	93
26	110	99	99	103	99	99	104	88	88	94	92	93
27	109	97	99	103	97	100	104	88	89	94	93	91
28	109	96	99	103	97	100	104	88	89	95	93	94
29	109	96	99	103	------	100	104	88	89	95	93	94
30	48	96	99	102	------	100	104	88	88	95	92	111
31	3.0	------	99	102	------	100	------	89	------	96	92	------
TOTAL	3,355.0	2,794	3,153	3,126	2,749	3,030	3,080	2,610	2,678	2,906	2,878	2,796
MEAN	108	93.1	102	101	98.2	97.7	103	84.2	89.3	93.7	92.8	93.2
MAX	144	100	114	103	102	100	104	104	90	98	96	111
MIN	3.0	21	96	99	96	95	100	62	88	87	89	91
AC-FT	6,650	5,540	6,250	6,200	5,450	6,010	6,110	5,180	5,310	5,760	5,710	5,550

CAL YR 1970 TOTAL 34,370.0 MEAN 94.2 MAX 148 MIN 3.0 AC-FT 68,170
WTR YR 1971 TOTAL 35,155.0 MEAN 96.3 MAX 144 MIN 3.0 AC-FT 69,730

10390000 Silver Creek near Silver Lake, Oreg.

LOCATION.--Lat 43°06'40", long 121°04'05", in SW¼ sec.28, T.28 S., R.14 E., Lake County, on right bank 1.5 miles downstream from diversion dam of Silver Lake Irrigation District, 1.5 miles southwest of town of Silver Lake, and 3 miles upstream from Bridge Creek.

DRAINAGE AREA.--180 sq mi, approximately.

PERIOD OF RECORD.--January 1905 to March 1907, January 1909 to September 1927, February to December 1928, February 1929 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1932. Datum of gage is 4,361.22 ft above mean sea level. Prior to May 24, 1932, nonrecording gage or water-stage recorder at practically same location at datum 1.00 ft higher, or nonrecording gage at diversion dam outlet 1.5 miles upstream at different datum.

AVERAGE DISCHARGE.--59 years (1905-6, 1909-27, 1929-41, 1943-71), 29.0 cfs (21,010 acre-ft per year), including diversion by Silver Lake Irrigation District Canal.

EXTREMES.--Current year: Maximum discharge, 443 cfs May 5; minimum daily, 2.5 cfs Nov. 16, 17.
Period of record: Maximum discharge, 1,800 cfs Mar. 20, 1907 (gage height, 10.08 ft, present datum), from rating curve extended above 700 cfs; maximum gage height, 10.3 ft Dec. 22, 1964; no flow at times in 1931-32, 1934, 1937.

REMARKS.--Records fair. Flow regulated by reservoir (capacity, 800 acre-ft) above diversion dam 1.5 miles above station and by Thompson Valley Reservoir (capacity, 17,400 acre-ft) 11 miles above station. Records given herein include flow in Silver Lake Irrigation District Canal which has diverted 1.5 miles above station 1923-43, 1966-70.

REVISIONS (WATER YEARS).--WSP 1564: 1906, 1910, 1921(M). WSP 1734: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	5.3	12	6.5	24	23	143	223	131	50	42	28
2	17	4.2	12	7.0	22	23	147	252	124	46	42	27
3	17	4.0	12	7.0	20	23	158	284	109	48	42	27
4	17	3.8	11	6.5	20	23	169	352	99	48	42	27
5	17	3.8	11	6.5	19	23	194	416	93	48	42	26
6	16	3.8	11	6.0	18	22	246	377	86	47	42	26
7	16	3.8	11	6.0	20	22	277	336	82	52	42	26
8	16	3.8	11	6.5	25	22	278	349	81	51	41	25
9	16	3.8	12	7.0	25	22	287	357	87	51	41	28
10	11	3.8	12	7.0	25	22	325	327	86	52	41	30
11	7.3	3.8	12	7.0	25	22	298	300	83	52	40	30
12	7.2	3.5	12	7.0	27	23	250	287	81	52	40	30
13	7.0	3.2	11	7.0	31	16	218	276	79	51	40	30
14	6.9	3.2	11	7.5	31	15	210	253	79	50	29	30
15	6.9	3.0	11	8.0	32	15	218	227	78	50	22	30
16	7.8	2.5	11	8.0	30	15	238	196	78	49	21	30
17	9.4	2.5	10	11	28	15	248	173	78	49	20	30
18	10	4.5	9.0	14	26	15	214	159	77	48	22	30
19	11	10	8.5	172	25	16	197	143	78	47	23	23
20	10	10	7.5	204	25	16	199	129	76	42	18	20
21	8.9	10	7.0	124	24	16	197	107	76	39	21	36
22	7.8	10	7.0	106	24	16	184	99	75	39	22	23
23	7.6	10	7.5	86	24	19	173	106	74	38	24	16
24	6.8	10	7.5	70	24	38	154	106	73	38	25	14
25	6.8	11	7.0	48	24	64	137	117	72	37	27	13
26	6.5	11	6.5	45	23	193	134	121	75	44	29	14
27	6.5	12	6.5	40	23	142	148	126	76	45	32	14
28	6.5	12	6.5	35	23	127	166	129	60	44	34	14
29	6.5	12	6.5	32	------	140	183	135	57	44	34	14
30	6.5	12	6.5	30	------	164	198	121	52	43	34	14
31	6.5	------	6.5	27	------	157	------	117	------	41	32	------
TOTAL	320.4	196.3	293.0	1,154.5	687	1,469	6,188	6,700	2,455	1,435	1,006	725
MEAN	10.3	6.54	9.45	37.2	24.5	47.4	206	216	81.8	46.3	32.5	24.2
MAX	17	12	12	204	32	193	325	416	131	52	42	36
MIN	6.5	2.5	6.5	6.0	18	15	134	99	52	37	18	13
AC-FT	636	389	581	2,290	1,360	2,910	12,270	13,290	4,870	2,850	2,000	1,440

CAL YR 1970 TOTAL 12,222.8 MEAN 33.5 MAX 192 MIN 2.5 AC-FT 24,240
WTR YR 1971 TOTAL 22,629.2 MEAN 62.0 MAX 416 MIN 2.5 AC-FT 44,890

10393500 Silvies River near Burns, Oreg.

LOCATION.--Lat 43°42'55", long 119°10'35", in NW¼NW¼ sec.31, T.21 S., R.30 E., Harney County, on left bank 5 miles downstream from Emigrant Creek and 11 miles northwest of Burns.

DRAINAGE AREA.--934 sq mi.

PERIOD OF RECORD.--May 1903 to July 1906, December 1908 to December 1912, March 1913 to September 1917 (irrigation seasons only), March 1918 to October 1920, March 1921 to July 1922 (irrigation seasons only), October 1922 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,195 ft above mean sea level (river-profile survey). See WSP 1734 for history of changes prior to Oct. 4, 1951.

AVERAGE DISCHARGE.--58 years (1903-5, 1909-12, 1917-21, 1922-71), 163 cfs (118,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs Apr. 10 (gage height, 12.03 ft); minimum, 7.8 cfs Oct. 30.
Period of record: Maximum discharge, 4,960 cfs Apr. 6, 1952 (gage height, 15.2 ft); no flow July 19 to Sept. 22, 1934.

REMARKS.--Records good October, February, April to June, poor at other times. No regulation. Diversions for irrigation above station during periods of high flow only.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	90	40	320	240	930	985	321	85	22	12
2	16	20	80	40	300	220	904	1,010	350	80	21	12
3	16	22	70	38	300	210	885	1,040	342	75	20	12
4	16	25	60	35	290	210	915	1,110	314	68	20	12
5	16	30	50	35	280	200	1,020	1,150	291	64	18	12
6	16	34	60	35	275	200	1,180	1,150	266	65	18	11
7	16	35	70	35	261	200	1,400	1,110	239	63	18	11
8	16	35	90	35	259	200	1,580	1,090	213	63	17	11
9	16	35	85	35	247	200	1,660	1,050	201	62	17	11
10	16	37	80	35	276	200	1,770	993	194	60	16	11
11	16	40	75	35	436	200	1,680	902	194	55	15	11
12	16	45	70	35	514	200	1,540	832	180	50	15	11
13	16	59	70	35	572	200	1,440	785	172	48	15	11
14	15	49	70	40	544	200	1,320	730	162	45	16	11
15	15	49	70	60	503	200	1,300	686	160	44	16	11
16	15	48	70	150	454	200	1,320	702	151	42	15	12
17	15	43	65	200	492	200	1,310	677	142	40	16	13
18	16	40	60	500	448	200	1,300	624	138	40	16	13
19	18	43	55	700	387	200	1,220	574	142	40	15	13
20	19	42	55	850	330	200	1,220	508	140	41	15	13
21	21	37	52	750	304	220	1,210	460	134	38	15	13
22	21	28	50	650	321	311	1,120	414	129	36	14	14
23	19	36	50	600	322	512	1,140	380	118	35	15	14
24	23	61	48	550	312	678	1,160	353	109	30	15	15
25	25	131	45	500	287	656	1,075	339	103	28	15	15
26	22	125	45	450	280	990	1,050	305	116	26	14	15
27	17	118	45	400	260	1,130	1,040	266	117	25	14	16
28	12	119	42	380	250	1,030	1,000	269	99	25	13	17
29	14	110	42	350	------	1,100	983	272	95	24	12	25
30	14	100	40	350	------	1,060	976	304	90	22	12	24
31	16	------	40	330	------	944	------	296	------	22	12	------
TOTAL	525	1,611	1,894	8,278	9,822	12,661	36,643	21,366	5,422	1,441	492	402
MEAN	16.9	53.7	61.1	267	351	408	1,221	689	181	46.5	15.9	13.4
MAX	25	131	90	850	572	1,130	1,770	1,150	350	85	22	25
MIN	12	17	40	35	247	200	885	266	90	22	12	11
AC-FT	1,040	3,200	3,760	16,420	19,480	25,110	72,680	42,380	10,750	2,860	976	797

CAL YR 1970 TOTAL 74,286.9 MEAN 204 MAX 1,400 MIN 6.6 AC-FT 147,300
WTR YR 1971 TOTAL 100,557.0 MEAN 275 MAX 1,770 MIN 11 AC-FT 199,500

NOTE.--No gage-height record Nov. 29 to Feb. 2, Aug. 23 to Sept. 21.

10396000 Donner und Blitzen River near Frenchglen, Oreg.

LOCATION.--Lat 42°47'28", long 118°52'00", in NW¼NW¼ sec.20, T.32 S., R.32¼ E., Harney County, Bureau of Land Management land, on left bank 1.5 miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2.0 miles downstream from Fish Creek, and 3.5 miles southeast of Frenchglen.

DRAINAGE AREA.--200 sq mi, approximately.

PERIOD OF RECORD.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, August to November 1929, April to September 1930, December 1937 to current year. Monthly discharge only for some periods, published in WSP 1314. Published as "near Diamond" 1911-21. Records of discharge for January 1909 to September 1910 (published in WSP 270, 290, and 370, for a non-equivalent site as "near Diamond") have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft above mean sea level (levels by Fish and Wildlife Service). Prior to December 1937, nonrecording gage at several sites within 2 miles downstream at different datums. Dec. 6, 1937, to Feb. 14, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--41 years (1911-13, 1914-16, 1917-21, 1938-71), 119 cfs (86,220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,750 cfs Jan. 18 (gage height, 6.29 ft); minimum, 10 cfs Jan. 3, result of freezeup.
Period of record: Maximum discharge, 2,750 cfs May 19, 1953 (gage height, 6.29 ft); minimum, 4.7 cfs Jan. 17, 1967, result of freezeup.

REMARKS.--Records excellent except those for period of no gage-height record, which are poor. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. WSP 1714: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	42	82	55	156	74	173	277	285	250	74	47
2	35	41	88	33	154	81	167	315	253	240	70	47
3	35	41	89	23	117	98	170	353	236	230	68	48
4	35	41	80	25	119	81	170	349	240	220	68	47
5	35	44	105	40	115	72	185	376	256	210	66	46
6	35	51	233	70	102	71	220	395	273	200	64	44
7	36	47	280	125	104	74	243	450	332	200	62	46
8	35	47	271	110	104	69	220	490	385	190	62	47
9	36	85	168	90	96	69	226	540	405	180	60	46
10	38	101	77	67	104	74	256	510	381	170	60	44
11	37	87	85	52	121	98	223	535	362	170	58	44
12	36	91	51	46	117	250	203	596	336	160	58	44
13	36	76	63	41	136	167	200	602	367	160	56	43
14	36	59	78	45	129	98	243	510	355	150	56	43
15	35	60	78	54	133	81	292	495	350	150	54	43
16	35	56	74	110	119	71	277	500	330	150	54	43
17	35	54	45	766	119	71	259	390	320	140	52	43
18	37	54	47	2,180	113	62	240	344	300	140	52	44
19	39	54	36	959	106	65	217	332	290	130	50	44
20	38	49	53	560	102	102	230	311	280	130	50	44
21	40	53	62	292	94	303	226	281	270	120	50	44
22	40	52	75	240	104	315	217	259	260	110	50	44
23	42	106	44	220	96	1,420	207	270	250	110	50	44
24	42	341	40	188	94	455	194	307	240	100	50	43
25	40	196	38	170	90	395	203	362	290	100	49	43
26	41	135	37	156	85	638	250	405	380	95	49	49
27	51	104	70	148	87	281	217	455	350	90	48	50
28	43	97	90	138	79	240	220	520	300	85	48	49
29	46	89	99	131	------	246	236	455	280	80	48	53
30	45	89	90	133	------	240	256	376	260	80	47	59
31	43	------	72	138	------	200	------	332	------	76	47	------
TOTAL	1,192	2,442	2,800	7,405	3,095	6,561	6,640	12,692	9,216	4,616	1,730	1,375
MEAN	38.5	81.4	90.3	239	111	212	221	409	307	149	55.8	45.8
MAX	51	341	280	2,180	156	1,420	292	602	405	250	74	59
MIN	35	41	36	23	79	62	167	259	236	76	47	43
AC-FT	2,360	4,840	5,550	14,690	6,140	13,010	13,170	25,170	18,280	9,160	3,430	2,730

CAL YR 1970 TOTAL 42,958 MEAN 118 MAX 1,320 MIN 19 AC-FT 85,210
WTR YR 1971 TOTAL 59,764 MEAN 164 MAX 2,180 MIN 23 AC-FT 118,500

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	0430	6.29	2,750	3-23	0300	5.88	2,300
3-12	1900	4.04	798	5-12	2330	3.87	692

10403000 Silver Creek near Riley, Oreg.

LOCATION.--Lat 43°41'30", long 119°39'30", in E½ sec.1, T.22 S., R.25 E., Harney County, on right bank 0.4 mile downstream from Rough Creek, 1.4 mile upstream from Nicoll Creek, and 14 miles northwest of Riley.

DRAINAGE AREA.--228 sq mi.

PERIOD OF RECORD.--June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft (by barometer).

AVERAGE DISCHARGE.--20 years, 41.9 cfs (30,360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 739 cfs Mar. 25 (gage height, 5.14 ft); minimum, 1.3 cfs Oct. 8.
Period of record: Maximum discharge, 1,810 cfs Dec. 22, 1964 (gage height, 7.49 ft); no flow at times.

REMARKS.--Records good except those for December, which are poor. No regulation. Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.4	16	6.0	69	47	205	163	42	12	3.3	2.4
2	1.7	3.4	11	5.4	68	47	214	162	41	11	3.9	3.0
3	1.7	3.4	10	5.0	46	70	248	160	37	11	3.9	3.3
4	1.7	3.9	9.2	4.0	50	49	285	153	33	11	2.9	3.0
5	1.6	4.6	8.9	5.2	58	42	342	141	30	10	2.9	2.7
6	1.7	6.4	8.9	6.0	48	46	468	126	27	9.6	2.9	2.4
7	1.9	5.6	10	10	52	39	561	115	26	9.6	2.9	2.8
8	1.8	5.6	11	16	54	40	486	113	25	10	2.8	2.8
9	1.6	7.1	9.6	35	53	37	468	106	24	9.6	2.8	2.7
10	2.4	6.2	9.6	58	62	36	492	89	26	10	2.7	2.1
11	2.4	8.2	9.0	54	69	37	396	81	27	10	2.4	2.4
12	2.0	9.3	8.0	40	79	39	327	76	25	9.3	2.1	2.4
13	1.6	5.6	7.8	35	100	33	287	71	28	8.6	2.2	2.5
14	1.7	4.3	8.2	32	108	28	281	63	24	7.8	2.0	2.5
15	1.9	5.9	9.0	30	113	32	306	59	22	7.1	2.1	2.4
16	2.0	5.2	9.5	46	104	23	300	55	21	6.8	2.3	2.2
17	2.0	4.8	8.5	160	106	33	296	54	19	6.2	2.3	2.1
18	2.6	4.6	7.0	348	98	32	258	49	20	6.2	2.3	2.4
19	3.4	5.0	9.0	329	89	30	229	43	22	7.1	2.2	2.8
20	3.3	4.1	13	290	83	37	231	42	19	7.5	2.2	2.8
21	3.3	5.0	8.0	168	66	50	222	40	18	6.2	2.1	3.0
22	3.2	3.2	6.0	153	83	63	203	36	16	5.4	2.3	3.0
23	4.1	5.0	4.5	155	72	155	201	33	15	5.0	2.1	2.9
24	5.2	12	5.6	130	70	145	189	32	14	4.8	2.1	2.9
25	4.6	18	5.4	109	59	239	175	31	15	4.3	2.2	3.0
26	3.8	10	5.2	98	51	378	174	30	18	4.3	2.3	3.5
27	3.3	8.6	5.6	84	59	235	172	28	17	3.9	2.3	3.6
28	3.2	9.3	6.0	74	50	201	172	26	15	3.6	2.4	3.6
29	3.2	8.9	6.4	69	------	214	167	46	14	3.3	2.3	5.4
30	3.4	9.6	7.4	68	------	248	165	58	13	3.5	2.4	5.7
31	3.9	------	7.0	66	------	220	------	40	------	3.3	2.2	------
TOTAL	81.9	196.2	260.3	2,688.6	2,019	2,925	8,520	2,321	693	228.0	77.8	88.3
MEAN	2.64	6.54	8.40	86.7	72.1	94.4	284	74.9	23.1	7.35	2.51	2.94
MAX	5.2	18	16	348	113	378	561	163	42	12	3.9	5.7
MIN	1.6	3.2	4.5	4.0	46	23	165	26	13	3.3	2.0	2.1
AC-FT	162	389	516	5,330	4,000	5,800	16,900	4,600	1,370	452	154	175

CAL YR 1970 TOTAL 14,697.0 MEAN 40.3 MAX 469 MIN 1.0 AC-FT 29,150
WTR YR 1971 TOTAL 20,099.1 MEAN 55.1 MAX 561 MIN 1.6 AC-FT 39,870

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-19	1900	4.22	441	4- 7	0430	4.86	641
3-25	2400	5.14	739				

10406500 Trout Creek near Denio, Nev.

LOCATION (revised).--Lat 42°09'20", long 118°27'30", in SW¼ sec.26, T.39 S., R.36 E., Malheur County, on right bank 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek Ranch, and 14 miles northeast of Denio.

DRAINAGE AREA.--88 sq mi, approximately.

PERIOD OF RECORD.--March 1911 to March 1912, April 1922 to November 1923, March 1925 to September 1931 (irrigation seasons only), April 1932 to current year. Prior to Oct. 1, 1961, published as "near Denio, Oreg."

GAGE.--Water-stage recorder. Datum of gage is 4,351.52 ft above mean sea level. Mar. 25, 1911, to Mar. 31, 1912, nonrecording gage at bridge 0.4 mile downstream at different datum. Apr. 28, 1922, to June 14, 1932, water-stage recorder at site 10 ft upstream at datum 0.50 ft higher.

AVERAGE DISCHARGE.--40 years (1922-23, 1932-71), 14.9 cfs (10,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 208 cfs May 12, 13 (gage height, 3.85 ft); minimum, 2.3 cfs Oct. 28.
Period of record: Maximum discharge, 470 cfs Aug. 1, 1933 (gage height, 5.26 ft), from rating curve extended above 230 cfs; minimum observed, 0.10 cfs Aug. 4, 1930, Aug. 1, Sept. 12, 28, 1934. Probably no flow at times Sept. 1-19, 1931.
Maximum stage, 6.0 ft (caused by cloudburst), probably occurred in 1924 or 1925.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1564: 1932, 1933-34(M), 1938(M). WSP 1714; Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	6.1	9.8	6.5	26	10	45	63	80	39	11	4.5
2	3.4	6.3	9.0	6.0	25	10	45	79	73	40	8.9	4.7
3	3.3	6.1	8.9	6.0	24	10	45	93	71	37	8.7	4.7
4	3.1	6.5	10	6.0	25	10	44	101	70	34	8.4	4.5
5	3.1	7.3	13	5.5	24	11	43	107	66	34	8.1	4.4
6	3.3	8.1	14	5.0	22	11	45	114	65	35	7.8	4.2
7	3.6	7.8	17	5.0	25	12	51	110	68	32	7.8	4.2
8	4.2	7.0	19	5.0	24	13	52	123	74	30	7.5	4.4
9	5.7	8.7	17	5.5	19	12	53	160	74	28	7.3	4.4
10	6.3	12	14	6.0	19	12	58	182	73	28	7.0	4.2
11	6.1	9.5	15	6.0	19	12	54	187	69	28	4.2	4.2
12	6.1	11	15	6.0	17	12	53	191	61	25	4.9	4.2
13	6.1	8.7	15	6.0	18	11	53	189	57	21	5.1	4.1
14	6.1	8.7	15	6.0	18	9.8	57	158	54	21	5.1	4.1
15	6.1	9.8	13	8.0	18	10	69	148	55	20	4.9	4.2
16	6.1	8.9	13	12	17	10	70	145	53	20	5.1	4.4
17	6.1	8.7	12	29	19	10	68	121	50	19	5.3	4.9
18	6.3	9.2	11	49	18	9.5	58	105	48	19	5.3	5.3
19	6.5	8.9	10	59	18	9.5	53	93	46	19	5.3	5.3
20	6.5	8.1	9.0	69	17	11	52	90	42	17	5.3	4.5
21	7.0	8.7	8.5	63	14	12	49	91	40	16	5.3	5.7
22	7.0	8.7	8.0	57	18	12	48	83	38	15	5.3	5.7
23	7.3	9.8	7.0	49	16	38	48	70	34	14	5.5	5.5
24	7.5	12	7.0	44	15	49	49	70	30	13	5.7	5.3
25	6.7	14	7.0	40	11	54	50	75	35	12	5.7	5.5
26	7.0	13	7.0	37	11	56	54	85	63	12	5.5	6.1
27	5.5	12	7.0	34	10	53	54	87	59	12	5.3	7.0
28	5.7	12	7.0	31	10	49	58	90	55	11	4.9	6.7
29	5.8	12	7.0	29	------	47	63	83	45	11	4.7	8.9
30	6.3	12	6.5	28	------	49	60	81	42	11	4.7	13
31	6.0	------	6.5	27	------	50	------	97	------	10	4.5	------
TOTAL	173.2	281.6	338.2	745.5	517	684.8	1,601	3,471	1,690	683	190.1	158.8
MEAN	5.59	9.39	10.9	24.0	18.5	22.1	53.4	112	56.3	22.0	6.13	5.29
MAX	7.5	14	19	69	26	56	70	191	80	40	11	13
MIN	3.1	6.1	6.5	5.0	10	9.5	43	63	30	10	4.2	4.1
AC-FT	344	559	671	1,480	1,030	1,360	3,180	6,880	3,350	1,350	377	315

CAL YR 1970 TOTAL 6,096.4 MEAN 16.7 MAX 103 MIN 2.3 AC-FT 12,090
WTR YR 1971 TOTAL 10,534.2 MEAN 28.9 MAX 191 MIN 3.1 AC-FT 20,890

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-21	1200	2.92	74	5-12	0500	3.85	208
3-26	0300	2.78	59	5-13	0500	3.85	208
4-16	0300	2.91	73	6-26	1700	3.17	103

GOOSE LAKE BASIN

11339500 Drews Creek near Lakeview, Oreg.

LOCATION.--Lat 42°07'10", long 120°34'45", in NW¼NE¼ sec.10, T.40 S., R.18 E., Lake County, on left bank 10 ft upstream from bridge, 2.0 miles downstream from Willow Creek, 2.7 miles downstream from Drews Dam, and 13 miles southwest of Lakeview.

DRAINAGE AREA.--212 sq mi.

PERIOD OF RECORD.--January 1909 to September 1930 (yearly estimate only for water year 1920), March 1931 to September 1936 (irrigation seasons only), April 1937 to September 1938, March 1939 to October 1941, February 1942, April 1942 to September 1952, February 1953 to current year. Monthly discharge only October 1921 to September 1925, published in WSP 1315-A. Published as Drew Creek near Lakeview October 1918 to September 1959.

GAGE.--Water-stage recorder. Datum of gage is 4,827.0 ft above mean sea level (levels by Bureau of Reclamation). See WSP 1931 for history of changes prior to July 4, 1953.

AVERAGE DISCHARGE.--40 years (1912-30, 1937-38, 1939-41, 1946-47, 1953-71), 71.6 cfs (51,870 acre-ft per year), including diversion by North Drews Canal.

EXTREMES.--Current year: Maximum discharge, 760 cfs Apr. 10 (gage height, 4.25 ft); maximum gage height, 4.47 ft Jan. 18 (ice jam); minimum discharge, 1.1 cfs Oct. 3, 4.

Period of record: Maximum discharge, about 3,000 cfs Mar. 1, 2, 1910, from rating curve extended above 1,200 cfs; no flow at times.

REMARKS.--Records fair. Record herein, except average discharge, not adjusted for diversion by North Drews Canal. Since 1912, flow regulated by Drews Reservoir (capacity, 62,550 acre-ft). Diversion for irrigation above station, and since March 1914, North Drews Canal has diverted above station for irrigation of lands west of Lakeview.

REVISIONS (WATER YEARS).--WSP 1565: 1909-10, 1913, 1918(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	3.8	8.2	6.5	9.0	113	492	338	205	54	71	86
2	1.4	3.8	8.2	7.0	9.0	113	476	350	222	54	70	80
3	1.2	3.8	7.8	7.0	7.0	113	468	368	222	54	74	64
4	1.4	4.1	8.6	7.0	7.0	113	480	413	208	54	81	52
5	2.0	5.8	10	6.5	7.4	113	516	420	195	55	80	51
6	3.2	5.0	40	6.0	7.4	113	560	402	183	58	80	51
7	3.2	4.7	33	6.0	7.0	113	610	416	173	61	81	52
8	3.2	5.4	25	6.0	7.0	113	595	448	157	71	81	63
9	3.5	6.6	22	6.0	7.0	113	590	540	145	78	81	78
10	3.5	5.4	14	6.0	12	113	725	532	145	77	81	78
11	3.5	6.6	12	6.0	13	115	730	500	131	75	89	78
12	3.5	7.0	9.0	6.0	13	117	660	488	118	70	89	80
13	3.5	6.6	9.0	6.0	13	117	605	480	110	70	94	86
14	3.5	5.8	8.2	6.5	12	117	590	440	97	70	96	86
15	3.2	5.4	7.8	8.2	16	117	590	413	80	75	96	84
16	3.5	5.0	8.2	19	11	117	580	378	75	80	89	77
17	3.5	5.0	7.8	175	10	117	595	308	84	80	81	72
18	4.1	4.7	8.2	250	9.0	117	568	281	84	80	78	59
19	3.5	5.0	8.0	61	9.0	117	528	260	86	80	77	58
20	4.4	5.0	7.5	37	8.6	117	484	239	86	84	72	54
21	4.4	4.7	7.5	18	8.6	124	452	212	104	80	78	54
22	5.0	5.0	7.0	13	8.6	155	436	189	105	72	80	54
23	5.0	9.0	7.0	10	8.6	205	424	173	104	67	89	52
24	4.7	10	7.0	8.6	29	230	396	165	110	78	89	48
25	4.1	25	6.5	8.2	78	350	364	96	110	80	86	48
26	4.1	20	6.5	7.8	96	590	338	75	99	83	86	48
27	3.8	15	6.0	8.2	115	650	335	71	86	80	86	48
28	3.8	12	6.0	7.8	115	620	332	86	70	77	89	48
29	3.8	10	6.0	7.8	------	605	329	110	56	67	88	48
30	3.8	9.0	6.0	8.2	------	605	335	131	55	68	92	42
31	3.8	------	6.5	8.2	------	532	------	159	------	74	89	------
TOTAL	121.1	223.2	335.1	744.5	653.2	6,964	15,183	9,481	3,705	2,206	2,593	1,879
MEAN	3.91	7.44	10.8	24.0	23.3	225	506	306	124	71.2	83.6	62.6
MAX	16	25	40	250	115	650	730	540	222	84	96	86
MIN	1.2	3.8	6.0	6.0	7.0	113	329	71	55	54	70	42
AC-FT	240	443	665	1,480	1,300	13,810	30,120	18,810	7,350	4,380	5,140	3,730
(†)	26	0	0	0	0	0	0	772	2,270	3,310	3,930	1,890
(‡)	a32,000	34,680	a40,500	55,090	a61,800	67,420	a66,300	65,660	a61,300	a53,100	a41,900	36,460

CAL YR 1970 TOTAL 34,815.9 MEAN 95.4 MAX 1,240 MIN 1.2 AC-FT 69,060
WTR YR 1971 TOTAL 44,088.1 MEAN 121 MAX 730 MIN 1.2 AC-FT 87,450

† Diversion, in acre-feet, by North Drews Canal.
‡ Month-end contents, in acre-feet, of Drews Reservoir.
a Contents interpolated.

11340500 Cottonwood Creek near Lakeview, Oreg.

LOCATION.--Lat 42°14'05", long 120°30'05", in N½ sec.32, T.38 S., R.19 E., Lake County, on right bank 0.7 mile downstream from Cottonwood Dam and 9 miles northwest of Lakeview.

DRAINAGE AREA.--32.9 sq mi.

PERIOD OF RECORD.--November 1908 to September 1919, May 1923 to November 1935, March to December 1936, April to December 1937, April 1938 to November 1942, March to November 1943, March to October 1944, February to November 1945, March 1946 to current year. Monthly discharge only May 1924 to September 1925, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 4,949.37 ft above mean sea level (levels by Bureau of Reclamation). Prior to June 1, 1919, and May 1, 1924, to June 3, 1932, nonrecording gage at several sites within 0.6 mile upstream at different datums. June 1 to Sept. 30, 1919, and June 4, 1932, to Sept. 14, 1961, water-stage recorder at site 0.6 mile upstream at different datums.

AVERAGE DISCHARGE.--50 years (1909-19, 1924-35, 1938-42, 1946-71), 21.7 cfs (15,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 146 cfs May 4 (gage height, 2.26 ft); minimum, 0.60 cfs Oct. 17, Nov. 13-22, 26, 27.
Period of record: Maximum discharge, between 500 and 1,000 cfs during period Apr. 26 to May 1, 1927, when natural flow, estimated as 170 cfs, was augmented by water escaping from reservoir through break in outlet conduit near control gates; no flow at times.

REMARKS.--Records fair. Flow regulated since 1923 by Cottonwood Reservoir (capacity, 7,540 acre-ft). Since October 1961, 240 acre-ft unregulated storage in Cottonwood Meadows, 9 miles upstream. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1565: 1910-11, 1919, 1929, 1937(M). WSP 1931: Drainage area (former site).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	.80	.70	.80	1.4	2.8	79	103	111	60	51	45
2	4.5	.70	.70	.80	1.6	3.0	87	103	103	51	51	45
3	4.8	.70	.70	.80	1.4	3.0	99	107	95	40	45	45
4	4.8	.70	.70	.80	1.4	3.0	107	128	87	36	45	41
5	2.5	.70	.80	.80	1.4	2.8	120	138	83	43	48	40
6	1.6	.70	2.0	.80	1.5	3.0	120	124	75	45	51	40
7	1.6	.70	1.8	.80	1.8	3.2	124	120	72	51	51	40
8	1.2	.80	1.4	.80	2.0	3.2	124	124	72	63	51	40
9	.90	.80	1.0	.80	2.2	3.8	128	128	72	66	54	40
10	.90	.80	.80	.80	2.4	3.8	146	120	72	66	54	38
11	.80	.80	.80	.80	2.0	4.0	128	120	72	66	54	32
12	.80	.70	.80	.80	2.2	5.0	111	120	69	66	54	32
13	.80	.60	.80	.80	2.2	5.0	107	124	66	66	54	32
14	.70	.60	.80	.80	2.4	5.0	111	115	63	63	54	34
15	.70	.60	.80	.80	3.0	5.0	115	115	60	63	54	38
16	.70	.60	.80	1.0	2.5	5.0	115	115	57	63	54	38
17	.60	.60	.80	1.0	2.4	5.0	115	103	60	63	51	41
18	.70	.60	.80	1.0	2.2	5.8	111	103	66	63	51	41
19	.70	.60	.80	1.0	2.4	5.8	95	103	72	60	51	45
20	.70	.60	.80	1.0	2.4	5.8	87	103	83	60	51	45
21	.70	.60	.80	1.0	2.2	5.8	83	99	91	60	51	45
22	.80	.60	.80	1.0	1.9	7.8	72	75	91	60	51	45
23	.80	1.0	.80	1.0	2.0	19	66	75	87	63	48	45
24	.80	1.0	.80	1.0	2.2	87	63	79	87	66	45	45
25	.80	1.8	.80	1.0	2.4	115	54	83	83	72	43	45
26	.80	.60	.80	1.2	2.4	133	54	95	79	69	45	45
27	.80	.60	.80	1.2	2.8	115	57	103	79	63	45	43
28	.80	.70	.80	1.2	2.8	91	63	115	72	57	45	34
29	.80	.80	.80	1.2	------	107	72	115	66	54	45	26
30	.80	.80	.80	1.2	------	107	87	115	60	51	45	14
31	.80	------	.80	1.2	------	83	------	111	------	51	45	------
TOTAL	46.50	22.20	27.40	29.20	59.5	953.6	2,900	3,381	2,305	1,820	1,537	1,179
MEAN	1.50	.74	.88	.94	2.13	30.8	96.7	109	76.8	58.7	49.6	39.3
MAX	7.8	1.8	2.0	1.2	3.0	133	146	138	111	72	54	45
MIN	.60	.60	.70	.80	1.4	2.8	54	75	57	36	43	14
AC-FT	92	44	54	58	118	1,890	5,750	6,710	4,570	3,610	3,050	2,340
(†)	1,800	2,700	4,100	6,100	7,700	9,050	9,030	8,900	8,000	5,300	2,500	688

CAL YR 1970 TOTAL 11,005.40 MEAN 30.2 MAX 95 MIN .40 AC-FT 21,830
WTR YR 1971 TOTAL 14,260.40 MEAN 39.1 MAX 146 MIN .60 AC-FT 28,290

† Month-end contents, in acre-ft, of Cottonwood Reservoir.

NOTE.--No gage-height record Dec. 24 to Feb. 2.

11492200 Crater Lake near Crater Lake, Oreg.
(Hydrologic bench-mark station)

LOCATION.--Lat 42°58'45", long 122°04'45", (unsurveyed) Crater Lake National Park and Vicinity Quadrangle, Klamath County, at boat harbor at end of trail in Cleetwood Cove and 6 miles northeast of Crater Lake post office.

DRAINAGE AREA.--26.2 sq mi, of which 20.5 sq mi is lake area at elevation 6,176 ft.

PERIOD OF RECORD.--October 1961 to current year. 1878 to September 1961 (fragmentary records) available in files of Portland district office.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted. Prior to September 1961, nonrecording gage and various reference points used near old boat landing at abandoned trail (Eagle Cove) directly across Lake.

EXTREMES.--Current year: Maximum elevation, 6,175.57 ft Apr. 17; minimum, 6,171.68 ft Oct. 19, 20.

Period of record: Maximum observed elevation, 6,179.06 ft, from high-water mark, occurred in 1958 and noted Aug. 10, 1960; minimum observed, 6,163.2 ft Sept. 10, 1942.

Maximum elevation known, 6,180.5 ft, average of several observations of line of crustose lichens made between 1916 and 1960; that stage may have occurred near the close of the 19th century. The occurrence of living pine trees slightly higher suggests that the lake has not been materially higher for several centuries.

REMARKS.--Crater Lake occupies the caldera of prehistoric Mount Mazama. It has no visible inlet or outlet. Over a period of years precipitation and runoff from snow melt on the walls of the crater are offset by seepage and evaporation. Records of chemical analyses and of water temperatures for the water year 1971 are published in Part 2 of this report. Records of accumulated annual precipitation, collected at the north rim of Crater Lake as part of the operation of this station, are published annually in reports of the National Weather Service.

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,172.04	6,171.89	6,173.10	6,173.56	6,174.66	6,174.94	6,175.51	6,175.40	6,175.42	6,175.51	6,175.29	6,174.90
2	6,172.01	6,171.87	6,173.13	6,173.53	6,174.64	6,174.96	6,175.49	6,175.41	6,175.42	6,175.50	6,175.28	6,174.87
3	6,172.00	6,171.84	6,173.25	6,173.51	6,174.63	6,175.00	6,175.48	6,175.41	6,175.41	6,175.50	6,175.27	6,174.86
4	6,171.99	6,171.85	6,173.22	6,173.50	6,174.67	6,175.06	6,175.46	6,175.40	6,175.40	6,175.50	6,175.25	6,174.85
5	6,171.95	6,171.96	6,173.24	6,173.48	6,174.66	6,175.06	6,175.45	6,175.40	6,175.39	6,175.49	6,175.23	6,174.84
6	6,171.92	6,171.96	6,173.23	6,173.46	6,174.65	6,175.04	6,175.44	6,175.37	6,175.39	6,175.48	6,175.22	6,174.81
7	6,171.90	6,171.96	6,173.31	6,173.45	6,174.64	6,175.05	6,175.42	6,175.38	6,175.38	6,175.46	6,175.20	6,174.79
8	6,171.89	6,172.12	6,173.31	6,173.49	6,174.63	6,175.03	6,175.43	6,175.38	6,175.38	6,175.46	6,175.18	6,174.78
9	6,171.86	6,172.14	6,173.29	6,173.52	6,174.66	6,175.02	6,175.51	6,175.38	6,175.38	6,175.48	6,175.18	6,174.76
10	6,171.85	6,172.12	6,173.31	6,173.60	6,174.66	6,175.06	6,175.52	6,175.37	6,175.40	6,175.46	6,175.17	6,174.75
11	6,171.84	6,172.25	6,173.29	6,173.66	6,174.64	6,175.16	6,175.51	6,175.37	6,175.40	6,175.45	6,175.15	6,174.73
12	6,171.82	6,172.25	6,173.26	6,173.67	6,174.64	6,175.21	6,175.50	6,175.40	6,175.40	6,175.45	6,175.16	6,174.72
13	6,171.80	6,172.23	6,173.26	6,173.71	6,174.62	6,175.21	6,175.49	6,175.39	6,175.39	6,175.44	6,175.15	6,174.70
14	6,171.76	6,172.20	6,173.30	6,173.79	6,174.67	6,175.26	6,175.49	6,175.38	6,175.38	6,175.43	6,175.12	6,174.68
15	6,171.74	6,172.20	6,173.37	6,173.96	6,174.69	6,175.24	6,175.47	6,175.42	6,175.37	6,175.43	6,175.10	6,174.67
16	6,171.72	6,172.20	6,173.43	6,174.25	6,174.67	6,175.26	6,175.52	6,175.42	6,175.37	6,175.43	6,175.07	6,174.63
17	6,171.70	6,172.18	6,173.41	6,174.62	6,174.66	6,175.24	6,175.56	6,175.41	6,175.37	6,175.43	6,175.05	6,174.59
18	6,171.71	6,172.19	6,173.40	6,174.75	6,174.71	6,175.22	6,175.53	6,175.40	6,175.41	6,175.42	6,175.04	6,174.56
19	6,171.68	6,172.16	6,173.39	6,174.81	6,174.69	6,175.21	6,175.52	6,175.39	6,175.42	6,175.41	6,175.03	6,174.55
20	6,171.74	6,172.15	6,173.41	6,174.79	6,174.67	6,175.20	6,175.54	6,175.38	6,175.42	6,175.40	6,175.00	6,174.50
21	6,171.83	6,172.12	6,173.41	6,174.76	6,174.66	6,175.19	6,175.52	6,175.37	6,175.42	6,175.40	6,174.97	6,174.49
22	6,171.85	6,172.16	6,173.40	6,174.76	6,174.66	6,175.28	6,175.52	6,175.36	6,175.42	6,175.40	6,174.96	6,174.48
23	6,171.98	6,172.38	6,173.38	6,174.75	6,174.66	6,175.32	6,175.52	6,175.36	6,175.42	6,175.38	6,174.95	6,174.46
24	6,171.98	6,172.76	6,173.36	6,174.73	6,174.76	6,175.33	6,175.50	6,175.36	6,175.44	6,175.38	6,174.94	6,174.45
25	6,172.03	6,172.85	6,173.35	6,174.72	6,174.79	6,175.46	6,175.49	6,175.41	6,175.54	6,175.36	6,174.92	6,174.48
26	6,172.01	6,172.86	6,173.34	6,174.71	6,174.83	6,175.51	6,175.47	6,175.41	6,175.55	6,175.35	6,174.92	6,174.49
27	6,171.98	6,172.98	6,173.34	6,174.70	6,174.91	6,175.49	6,175.45	6,175.41	6,175.55	6,175.34	6,174.91	6,174.46
28	6,171.96	6,172.97	6,173.46	6,174.69	6,174.96	6,175.48	6,175.44	6,175.42	6,175.53	6,175.33	6,174.90	6,174.52
29	6,171.94	6,172.97	6,173.55	6,174.68	-------	6,175.48	6,175.42	6,175.42	6,175.53	6,175.33	6,174.88	6,174.57
30	6,171.90	6,173.05	6,173.57	6,174.67	-------	6,175.53	6,175.41	6,175.41	6,175.52	6,175.31	6,174.89	6,174.55
31	6,171.90	-------	6,173.59	6,174.66	-------	6,175.51	-------	6,175.42	-------	6,175.30	6,174.88	-------
MEAN	6,171.88	6,172.29	6,173.34	6,174.16	6,174.69	6,175.23	6,175.49	6,175.39	6,175.43	6,175.42	6,175.07	6,174.65
MAX	6,172.04	6,173.05	6,173.59	6,174.81	6,174.96	6,175.53	6,175.56	6,175.42	6,175.55	6,175.51	6,175.29	6,174.90
MIN	6,171.68	6,171.84	6,173.10	6,173.45	6,174.62	6,174.94	6,175.41	6,175.36	6,175.37	6,175.30	6,174.88	6,174.45

WTR YR 1971 MEAN 6,174.42 MAX 6,175.56 MIN 6,171.68

11493500 Williamson River near Klamath Agency, Oreg.

LOCATION.--Lat 42°44'25", long 121°50'00", in NW¼SW¼ sec.1, T.33 S., R.7 E., Klamath county, on right bank 250 ft downstream from highway bridge, 0.6 mile southwest of railroad station at Kirk, 10 miles upstream from Spring Creek, and 10 miles northeast of Klamath Agency.

DRAINAGE AREA.--1,290 sq mi, approximately.

PERIOD OF RECORD.--March 1908 to Janaury 1909, April 1909 to June 1910, October 1954 to current year. Monthly discharge only June 1910, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 4,481.34 ft above mean sea level. Mar. 25, 1908, to June 30, 1910, nonrecording gage or water-stage recorder at two sites about 0.5 mile upstream at different datums. Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site at datum 2.05 ft higher.

AVERAGE DISCHARGE.--17 years (1954-71), 211 cfs (152,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 684 cfs Apr. 25 (gage height, 5.10 ft); no flow Oct. 1 to Nov. 21.
Period of record: Maximum discharge observed, 1,590 cfs Mar. 13, 1910 (gage height, 3.7 ft, site and datum then in use), from rating curve extended above 800 cfs; no flow at times during 1960-71.

REMARKS.--Records good. Flow affected by natural storage in Klamath Marsh. Small diversions above station for irrigation in vicinity of marsh.

REVISIONS (WATER YEARS).--WSP 1565: 1909-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	214	165	278	372	566	595	435	220	38	1.2
2		0	217	160	292	376	577	589	430	214	33	2.1
3		0	230	135	300	376	589	589	425	202	31	2.4
4		0	214	135	312	368	595	583	421	193	28	2.0
5		0	223	130	335	352	600	577	412	182	26	1.7
6		0	243	130	347	331	600	583	403	179	25	1.9
7		0	274	130	347	347	600	561	394	168	23	1.7
8		0	304	125	347	347	600	561	385	157	22	1.4
9		0	319	125	347	352	600	550	372	149	19	1.3
10		0	331	125	352	352	606	545	364	147	17	1.2
11		0	339	121	360	356	617	534	360	142	15	1.7
12		0	343	118	372	364	629	503	352	137	13	2.1
13		0	331	118	385	327	641	498	339	132	13	2.2
14		0	327	114	398	339	647	488	335	128	11	2.6
15		0	296	106	425	360	654	463	327	121	11	2.3
16		0	226	102	440	381	647	458	319	116	9.2	2.7
17		0	230	121	444	368	641	473	312	108	7.4	2.3
18		0	240	157	449	372	654	468	304	104	6.1	1.3
19		0	190	190	449	381	654	468	300	98	5.2	.89
20		0	180	211	449	381	654	468	292	93	4.6	.95
21		0	180	214	454	381	654	488	288	89	3.8	.75
22		1.1	180	214	458	394	641	473	274	84	3.1	.48
23		2.0	180	214	458	425	635	458	270	79	2.8	.37
24		16	220	214	458	449	641	444	256	76	2.6	.26
25		86	220	243	440	473	654	440	253	71	2.2	.21
26		137	223	256	430	488	641	449	256	64	1.8	.21
27		137	223	256	416	493	629	458	249	60	1.8	.25
28		157	211	256	394	508	623	444	246	54	1.7	.30
29		190	193	260	------	529	612	435	240	51	1.6	.58
30		226	176	260	------	540	600	430	230	47	1.5	1.4
31		------	165	263	------	555	------	425	------	42	1.4	------
TOTAL	0	952.1	7,442	5,368	10,936	12,437	18,701	15,498	9,843	3,707	381.8	40.75
MEAN	0	31.7	240	173	391	401	623	500	328	120	12.3	1.36
MAX	0	226	343	263	458	555	654	595	435	220	38	2.7
MIN	0	0	165	102	278	327	566	425	230	42	1.4	.21
AC-FT	0	1,890	14,760	10,650	21,690	24,670	37,090	30,740	19,520	7,350	757	81

CAL YR 1970 TOTAL 56,487.65 MEAN 155 MAX 714 MIN 0 AC-FT 112,000
WTR YR 1971 TOTAL 85,306.65 MEAN 234 MAX 654 MIN 0 AC-FT 169,200

11497500 Sprague River near Beatty, Oreg.

LOCATION.--Lat 42°26'50", long 121°14'15", in NW¼SE¼ sec.13, T.36 S., R.12 E., Klamath County, on right bank 1.6 miles east of Beatty, and 4.6 miles upstream from Sycan River.

DRAINAGE AREA.--513 sq mi.

PERIOD OF RECORD.--April to September 1912 and November 1912 to September 1913 (fragmentary), October 1913 to September 1915, February to November 1916, March 1917 to June 1918, May 1919 to October 1920, February 1921 to September 1926 (irrigation seasons only), October 1953 to current year. Monthly discharge only October 1913, published in WSP 1315-B. Prior to October 1917, published as "near Yainax."

GAGE.--Water-stage recorder. Datum of gage is 4,305.35 ft above mean sea level. Apr.19, 1912, to Feb. 19, 1914, nonrecording gage, Feb. 20, 1914, to Sept. 11, 1917, water-stage recorder, and Sept. 12, 1917, to Sept. 30, 1926, nonrecording gage, at site 2 miles upstream at different datum.

AVERAGE DISCHARGE.--21 years (1913-15, 1919-20, 1953-71), 315 cfs (228,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,320 cfs Jan. 19 (gage height, 8.54 ft); minimum, 119 cfs Aug. 13.
Period of record: Maximum discharge, 6,980 cfs Dec. 23, 1964 (gage height, 12.19 ft); minimum observed, 57 cfs June 30, 1924, June 20, 1926.

REMARKS.--Records good. No regulation. Diversions for irrigation above station in the vicinity of Bly.

REVISIONS (WATER YEARS).--WSP 1315-B: 1917(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	164	289	199	362	248	636	978	1,200	374	174	162
2	143	161	312	172	368	239	643	1,050	1,160	351	168	159
3	144	162	270	159	316	280	681	1,130	1,050	329	159	160
4	146	162	245	166	319	268	711	1,300	914	285	153	165
5	146	168	297	167	328	260	763	1,610	841	258	148	166
6	145	190	538	179	316	244	863	1,610	778	258	141	163
7	160	186	1,290	195	291	262	955	1,500	731	235	141	156
8	149	181	1,330	195	283	249	935	1,630	705	230	137	160
9	155	205	943	197	285	253	937	1,850	667	234	138	158
10	146	218	563	213	301	252	1,110	1,920	679	281	139	155
11	145	207	415	220	379	270	1,240	1,830	714	288	135	159
12	149	249	300	209	403	332	1,110	1,810	675	253	135	158
13	149	240	245	192	423	306	966	1,870	653	242	124	162
14	147	194	278	184	415	338	929	1,860	627	233	127	158
15	146	185	269	197	461	317	965	1,670	586	230	128	151
16	147	177	256	201	453	292	1,020	1,570	541	212	130	157
17	147	173	224	521	401	252	1,070	1,430	497	206	137	152
18	147	171	223	1,520	365	260	1,110	1,260	469	202	156	158
19	152	169	190	2,240	332	269	1,020	1,180	585	227	149	158
20	155	165	186	1,950	312	278	942	1,100	515	230	148	155
21	158	165	227	1,220	323	321	940	1,030	487	216	149	162
22	165	170	239	728	334	529	952	952	458	223	148	162
23	188	181	218	614	319	1,200	895	915	425	219	151	162
24	208	334	194	513	322	2,080	835	930	421	208	149	163
25	185	769	181	484	321	1,760	766	946	418	192	150	167
26	175	738	192	414	267	1,550	734	1,000	513	186	146	179
27	166	405	204	404	285	1,510	768	1,070	571	180	141	185
28	161	303	212	389	266	959	817	1,290	564	209	145	181
29	162	303	203	372	------	821	845	1,530	481	179	148	203
30	162	321	199	364	------	828	905	1,410	399	168	150	257
31	164	------	206	361	------	746	------	1,270	------	162	155	------
TOTAL	4,855	7,416	10,938	15,139	9,550	17,773	27,063	42,501	19,324	7,300	4,499	4,993
MEAN	157	247	353	488	341	573	902	1,371	644	235	145	166
MAX	208	769	1,330	2,240	461	2,080	1,240	1,920	1,200	374	174	257
MIN	143	161	181	159	266	239	636	915	399	162	124	151
AC-FT	9,630	14,710	21,700	30,030	18,940	35,250	53,680	84,300	38,330	14,480	8,920	9,900

CAL YR 1970 TOTAL 129,327 MEAN 354 MAX 3,260 MIN 96 AC-FT 256,500
WTR YR 1971 TOTAL 171,351 MEAN 469 MAX 2,240 MIN 124 AC-FT 339,900

11501000 Sprague River near Chiloquin, Oreg.

LOCATION.--Lat 42°35'05", long 121°50'55", in NE¼NW¼ sec.35, T.34 S., R.7 E., Klamath County, on right bank 1.0 mile northeast of Chiloquin, 4.6 miles upstream from Modoc Point Canal intake, and 5.4 miles upstream from mouth.

DRAINAGE AREA.--1,580 sq mi, approximately.

PERIOD OF RECORD.--July to October 1920, March 1921 to current year. Monthly discharge only July 1920, published in WSP 1315-B. Prior to October 1931, published as "at McCready Ranch, near Chiloquin."

GAGE.--Water-stage recorder. Datum of gage is 4,202.43 ft above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at site 12 miles upstream at different datum.

AVERAGE DISCHARGE.--50 years (1921-71), 569 cfs (412,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,050 cfs Mar. 28 (gage height, 6.01 ft); minimum, 191 cfs Jan. 14.
Period of record: Maximum discharge, 14,900 cfs Dec. 26, 1964 (gage height, 10.37 ft); minimum daily, 50 cfs May 26, 27, 1926.

REMARKS.--Records good. Regulation by ponding at irrigation dams. Diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 591: 1922(M). WSP 1011: 1943(M). WSP 1565: 1921-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	273	329	602	435	926	607	2,490	1,620	2,140	745	341	268
2	281	329	602	400	906	556	2,450	1,630	2,240	683	332	263
3	286	334	591	380	881	613	2,270	1,680	2,230	612	322	259
4	281	338	553	380	858	567	2,070	1,760	2,160	574	325	265
5	281	343	500	380	802	595	2,020	1,870	2,080	558	310	268
6	281	348	543	400	783	593	2,040	1,980	1,990	533	299	281
7	277	352	564	400	781	574	2,090	2,180	1,830	496	282	286
8	277	371	692	400	768	563	2,180	2,490	1,670	474	268	286
9	286	390	944	420	733	594	2,360	2,700	1,540	466	255	283
10	290	385	1,210	447	716	588	2,550	2,780	1,450	462	260	281
11	290	409	1,410	441	735	626	2,540	2,770	1,360	455	261	281
12	290	424	1,320	440	817	690	2,530	2,840	1,280	468	249	281
13	286	414	965	420	969	731	2,570	2,950	1,240	492	259	283
14	286	424	740	366	1,080	791	2,610	2,910	1,210	487	256	273
15	286	439	624	409	1,190	782	2,520	2,870	1,160	444	253	273
16	286	404	580	453	1,260	774	2,380	2,900	1,100	423	244	268
17	290	385	559	601	1,300	734	2,310	2,900	1,050	404	244	264
18	294	376	531	852	1,310	675	2,260	2,860	993	398	243	268
19	299	361	460	1,080	1,210	619	2,250	2,730	904	391	245	274
20	311	357	440	1,530	1,070	621	2,280	2,550	846	382	243	279
21	316	357	440	2,180	942	647	2,300	2,370	846	385	254	277
22	320	357	460	2,940	843	720	2,210	2,210	839	399	248	276
23	343	376	523	3,210	796	1,060	2,140	2,090	771	397	236	276
24	357	414	480	2,850	793	1,480	2,050	1,990	720	395	239	284
25	366	495	440	2,450	776	2,010	2,000	1,900	686	390	243	287
26	385	558	420	1,770	750	3,030	1,960	1,850	669	380	255	295
27	376	752	420	1,400	740	3,780	1,850	1,770	675	367	258	304
28	352	930	440	1,200	644	4,030	1,720	1,730	710	363	267	313
29	338	930	461	1,070	------	3,780	1,640	1,760	746	360	261	339
30	334	734	440	1,010	------	3,290	1,620	1,820	767	354	264	346
31	334	------	449	959	------	2,730	------	1,930	------	354	262	------
TOTAL	9,552	13,415	19,403	31,673	25,379	39,450	66,260	70,390	37,902	14,091	8,278	8,481
MEAN	308	447	626	1,022	906	1,273	2,209	2,271	1,263	455	267	283
MAX	385	930	1,410	3,210	1,310	4,030	2,610	2,950	2,240	745	341	346
MIN	273	329	420	366	644	556	1,620	1,620	669	354	236	259
AC-FT	18,950	26,610	38,490	62,820	50,340	78,250	131,400	139,600	75,180	27,950	16,420	16,820

CAL YR 1970 TOTAL 261,226 MEAN 716 MAX 6,760 MIN 221 AC-FT 518,100
WTR YR 1971 TOTAL 344,274 MEAN 943 MAX 4,030 MIN 236 AC-FT 682,900

11502500 Williamson River below Sprague River, near Chiloquin, Oreg.

LOCATION.--Lat 42°34'15", long 121°52'35", in NE¼NE¼ sec.4, T.35 S., R.7 E., Klamath County, on right bank 0.2 mile downstream from Sprague River and 0.8 mile southwest of Chiloquin.

DRAINAGE AREA.--3,000 sq mi, approximately.

PERIOD OF RECORD.--June 1917 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,155.55 ft above mean sea level. Prior to Sept. 1, 1923, at different datum.

AVERAGE DISCHARGE.--54 years, 1,027 cfs (744,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,140 cfs Mar. 28 (gage height, 6.04 ft); minimum, 568 cfs Oct.1, Aug. 23-25.
Period of record: Maximum discharge, 16,100 cfs Dec. 26, 1964 (gage height, 10.56 ft); minimum, 320 cfs Oct. 14, 1920.

REMARKS.--Records excellent. Some regulation by diversion dams and logpond operations on Sprague River. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 981: 1938(M). WSP 1565: 1920(M), 1927(M), 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	575	680	1,090	890	1,600	1,230	3,490	2,560	2,890	1,280	708	597
2	582	680	1,080	772	1,590	1,190	3,480	2,560	3,000	1,220	707	585
3	590	680	1,090	725	1,570	1,280	3,320	2,610	2,970	1,150	698	576
4	590	683	996	723	1,550	1,230	3,120	2,690	2,870	1,090	687	583
5	582	695	988	756	1,500	1,230	3,060	2,780	2,780	1,060	670	586
6	582	698	1,050	764	1,490	1,200	3,100	2,890	2,670	1,020	654	599
7	582	698	1,090	770	1,480	1,210	3,140	3,080	2,500	988	638	609
8	590	729	1,230	794	1,470	1,190	3,230	3,420	2,330	951	623	615
9	590	748	1,490	824	1,420	1,220	3,440	3,660	2,170	925	608	614
10	620	738	1,780	867	1,410	1,230	3,650	3,710	2,050	912	609	612
11	635	767	1,980	867	1,460	1,270	3,660	3,730	1,950	902	611	612
12	635	775	1,860	860	1,560	1,360	3,650	3,850	1,870	900	600	635
13	630	765	1,570	823	1,730	1,350	3,730	3,960	1,820	907	608	610
14	631	770	1,340	723	1,860	1,420	3,800	3,890	1,780	898	610	599
15	633	790	1,200	802	1,970	1,450	3,700	3,840	1,730	870	603	598
16	635	757	1,130	891	2,030	1,450	3,540	3,800	1,680	844	590	595
17	636	727	1,060	1,080	2,080	1,390	3,460	3,810	1,610	819	586	591
18	643	716	986	1,370	2,100	1,320	3,410	3,780	1,540	809	586	597
19	645	705	870	1,580	1,960	1,260	3,400	3,660	1,450	808	587	607
20	659	701	833	2,020	1,830	1,260	3,430	3,450	1,390	801	583	605
21	665	696	898	2,620	1,710	1,300	3,450	3,250	1,380	793	593	605
22	668	705	903	3,440	1,630	1,370	3,350	3,070	1,370	793	588	608
23	718	727	1,030	3,850	1,560	1,690	3,250	2,910	1,300	793	573	609
24	719	821	968	3,470	1,580	2,100	3,140	2,750	1,250	791	571	624
25	723	913	890	3,130	1,500	2,570	3,090	2,650	1,220	785	575	629
26	745	993	833	2,370	1,450	3,590	3,050	2,600	1,220	780	581	642
27	734	1,200	861	2,000	1,470	4,620	2,920	2,530	1,220	759	590	643
28	709	1,380	916	1,800	1,330	5,090	2,760	2,490	1,240	734	599	655
29	695	1,400	901	1,710	------	5,020	2,630	2,490	1,280	732	594	692
30	686	1,250	899	1,650	------	4,640	2,580	2,540	1,300	718	595	689
31	681	------	928	1,620	------	3,980	------	2,650	------	718	599	------
TOTAL	20,008	24,587	34,740	46,561	45,890	61,710	99,030	97,660	55,830	27,550	19,024	18,391
MEAN	645	820	1,121	1,502	1,639	1,991	3,301	3,150	1,861	889	614	613
MAX	745	1,400	1,980	3,850	2,100	5,090	3,800	3,960	3,000	1,280	708	692
MIN	575	680	833	723	1,330	1,190	2,580	2,490	1,220	718	571	576
AC-FT	39,690	48,770	68,910	92,350	91,020	122,400	196,400	193,700	110,700	54,650	37,730	36,480

CAL YR 1970 TOTAL 436,014 MEAN 1,195 MAX 7,910 MIN 455 AC-FT 864,800
WTR YR 1971 TOTAL 550,981 MEAN 1,510 MAX 5,090 MIN 571 AC-FT 1,093,000

11506000 "A" Canal at Klamath Falls, Oreg.

LOCATION.--Lat 42°12'20", long 121°48'05", in NE¼ sec.30, T.38 S., R.9 E., Klamath County, on left bank 300 ft downstream from headgates of canal and 1 mile northwest of Klamath Falls.

PERIOD OF RECORD.--October 1910 to current year. Published as "Klamath Main Canal" 1911-12.

GAGE.--Water-stage recorder. Datum of gage is 4,126.22 ft above mean sea level, Bureau of Reclamation datum (levels by Bureau of Reclamation). Prior to May 1, 1923, water-stage recorder at site 0.2 mile downstream at head of tunnel and at different datum. May 1, 1923, to Apr. 20, 1924, water-stage recorder at site 1 mile downstream, just below tunnel, at different datum. Apr. 21, 1924, to Apr. 14, 1925, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--61 years, 254 cfs (184,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,180 cfs June 24, 1961; no flow for several months in each year.

REMARKS.--Records excellent. Canal diverts water from Upper Klamath Lake in NE¼ sec.30, T.38 S., R.9 E., for irrigation of lands east of Klamath River on both sides of Lost River. Most of return water reaches Lost River.

COOPERATION.--Gage-height record, 1 discharge measurement, and records of daily discharge furnished by Klamath Irrigation District; 5 discharge measurements made and records reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476						0	337	476	723	997	824
2	457						0	368	432	774	997	813
3	444						0	412	418	823	1,010	799
4	427						0	383	408	852	1,030	768
5	420						0	358	421	878	1,010	754
6	400						0	344	469	880	995	737
7	372						0	328	533	912	980	732
8	364						0	324	632	964	932	739
9	353						0	315	695	960	938	726
10	353						0	305	715	948	936	739
11	357						0	323	746	931	942	733
12	350						0	371	831	928	965	729
13	356						0	376	884	940	974	708
14	368						45	370	899	954	977	704
15	364						70	402	925	992	960	720
16	357						70	397	992	1,020	928	736
17	369						58	401	1,000	1,030	916	729
18	347						108	438	989	1,020	932	708
19	308						173	503	955	1,020	903	695
20	275						176	534	909	1,030	892	663
21	257						176	532	929	1,040	894	659
22	226						165	556	984	1,010	873	671
23	200						154	623	1,020	1,010	852	667
24	125						154	729	1,040	1,030	827	666
25	92						172	818	1,040	1,040	816	639
26	34						178	852	954	1,040	827	599
27	0						198	814	856	1,050	841	553
28	0						241	712	656	1,040	870	511
29	0				------		281	605	299	1,040	860	463
30	0				------		302	558	292	1,040	855	381
31	0	------			------		------	542	------	1,030	834	------
TOTAL	8,451	0	0	0	0	0	2,721	14,930	22,399	29,949	28,563	20,565
MEAN	273	0	0	0	0	0	90.7	482	747	966	921	686
MAX	476	0	0	0	0	0	302	852	1,040	1,050	1,030	824
MIN	0	0	0	0	0	0	0	305	292	723	816	381
AC-FT	16,760	0	0	0	0	0	5,400	29,610	44,430	59,400	56,650	40,790

CAL YR 1970 TOTAL 141,113.00 MEAN 387 MAX 1,070 MIN 0 AC-FT 279,900
WTR YR 1971 TOTAL 127,578.00 MEAN 350 MAX 1,050 MIN 0 AC-FT 253,100

11507000 Upper Klamath Lake near Klamath Falls, Oreg.

LOCATION.--Lat 42°15'00", long 121°48'55", in NW¼SW¼ sec.19, T.38 S., R.9 E., Klamath County, at southeast end of lake, 1.4 miles upstream from outlet and 2.5 miles northwest of Main Street Bridge (U.S. Highway 97) at Klamath Falls.

DRAINAGE AREA.--3,810 sq mi, approximately, including 26.2 sq mi in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to September 1923 (gage heights only), October 1923 to current year. Month-end contents only October 1923 to September 1927, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 4,098.22 ft above mean sea level; or 4,100.00 ft above mean sea level, datum of Bureau of Reclamation. See WSP 1735 for history of chages prior to Nov. 10, 1923.

EXTREMES.--Current year: Maximum elevation, 4,143.94 ft May 20 (caused by wind); maximum daily, 4,143.45 ft May 21; minimum, 4,139.08 ft Oct. 20; minimum daily, 4,139.60 ft Oct. 21.

Period of record: Maximum elevation, 4,144.98 ft about Apr. 20, 1904, from high-water marks; minimum recorded, 4,135.55 ft Oct. 30, 1944.

REMARKS.--Reservoir is formed by concrete dam at outlet of natural lake, completed in 1921, replacing a temporary dam built in 1919; controlled storage began Apr. 15, 1919. Capacity, 584,000 acre-ft between elevations 4,135.0 and 4,143.3 ft. Dead storage below elevation 4,135.0 ft not known. Stored water may be diverted through "A" Canal for irrigation of land under Klamath project of Bureau of Reclamation, or released to Link River through dam or powerplants at Klamath Falls. Contents given herein represent those above elevation 4,135.0 ft.

COOPERATION.--Capacity table furnished by Pacific Power & Light Co.

Capacity table (elevation, in feet, and contents, in acre-feet)

4,138	178,700	4,141	382,600	4,143.7	621,000
4,139	239,500	4,142	468,000		
4,140	304,100	4,143	556,600		

MEAN ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,139.97	4,140.15	4,140.56	4,140.39	4,141.19	4,141.81	4,142.67	4,142.60	4,143.01	4,143.24	4,142.76	4,140.86
2	4,139.95	4,140.18	4,140.70	4,140.37	4,141.21	4,141.74	4,142.67	4,142.64	4,143.01	4,143.22	4,142.73	4,142.04
3	4,139.94	4,140.16	4,140.38	4,140.33	4,141.22	4,141.75	4,142.67	4,142.70	4,143.02	4,143.21	4,142.69	4,141.97
4	4,139.97	4,139.98	4,140.68	4,140.31	4,141.23	4,141.77	4,142.64	4,142.92	4,143.01	4,143.23	4,142.60	4,141.93
5	4,140.12	4,140.05	4,140.63	4,140.30	4,141.28	4,141.77	4,142.52	4,142.96	4,143.00	4,143.24	4,142.57	4,141.92
6	4,140.12	4,140.12	4,140.50	4,140.28	4,141.30	4,141.78	4,142.57	4,143.01	4,143.00	4,143.20	4,142.57	4,142.09
7	4,139.95	4,140.12	4,140.47	4,140.25	4,141.31	4,141.78	4,142.68	4,143.00	4,143.04	4,143.23	4,142.51	4,141.93
8	4,139.90	4,140.13	4,140.65	4,140.22	4,141.35	4,141.78	4,142.50	4,143.07	4,143.00	4,143.10	4,142.54	4,141.90
9	4,139.89	4,140.28	4,140.69	4,140.19	4,141.31	4,141.77	4,142.36	4,142.97	4,142.99	4,143.16	4,142.58	4,141.89
10	4,139.89	4,140.28	4,140.56	4,140.22	4,141.35	4,141.69	4,142.71	4,143.02	4,143.03	4,143.16	4,142.53	4,141.90
11	4,139.89	4,140.28	4,140.62	4,140.23	4,141.40	4,141.67	4,142.82	4,143.00	4,142.95	4,143.19	4,142.51	4,141.91
12	4,139.96	4,140.42	4,140.61	4,140.22	4,141.40	4,141.81	4,142.92	4,142.96	4,142.97	4,143.20	4,142.48	4,141.94
13	4,139.93	4,140.36	4,140.55	4,140.22	4,141.41	4,141.92	4,142.89	4,143.09	4,143.03	4,143.15	4,142.42	4,141.99
14	4,139.94	4,140.34	4,140.51	4,140.22	4,141.39	4,141.95	4,142.94	4,143.03	4,143.11	4,143.19	4,142.41	4,142.08
15	4,139.89	4,140.10	4,140.28	4,140.23	4,141.49	4,141.97	4,142.95	4,143.09	4,143.12	4,143.14	4,142.36	4,141.94
16	4,139.85	4,140.27	4,140.42	4,140.28	4,141.54	4,142.12	4,142.81	4,143.21	4,143.12	4,143.11	4,142.34	4,142.06
17	4,139.80	4,140.30	4,140.50	4,140.41	4,141.60	4,142.02	4,142.89	4,143.10	4,143.07	4,143.10	4,142.34	4,141.89
18	4,139.80	4,140.38	4,140.49	4,140.56	4,141.55	4,142.09	4,142.97	4,143.07	4,143.01	4,143.11	4,142.28	4,141.78
19	4,139.79	4,140.20	4,140.47	4,140.69	4,141.84	4,142.09	4,142.81	4,143.11	4,143.02	4,143.09	4,142.26	4,141.84
20	4,139.71	4,140.21	4,140.45	4,140.81	4,141.75	4,142.04	4,142.98	4,143.22	4,143.04	4,143.06	4,142.19	4,141.86
21	4,139.60	4,140.24	4,140.46	4,140.83	4,141.65	4,142.04	4,142.75	4,143.45	4,143.07	4,142.97	4,142.14	4,141.87
22	4,139.76	4,140.26	4,140.44	4,140.94	4,141.69	4,141.99	4,142.66	4,143.05	4,143.09	4,142.95	4,142.26	4,141.81
23	4,139.83	4,140.15	4,140.43	4,141.00	4,141.69	4,142.13	4,142.81	4,142.97	4,143.13	4,142.95	4,142.25	4,141.79
24	4,140.01	4,140.20	4,140.42	4,141.05	4,141.70	4,142.20	4,142.97	4,142.93	4,142.99	4,142.92	4,142.15	4,141.85
25	4,140.10	4,140.43	4,140.41	4,141.10	4,141.95	4,142.17	4,142.89	4,142.93	4,143.00	4,142.91	4,142.10	4,141.80
26	4,140.11	4,140.40	4,140.40	4,141.11	4,141.63	4,142.41	4,142.73	4,143.01	4,143.16	4,142.91	4,142.10	4,141.75
27	4,140.12	4,140.33	4,140.37	4,141.12	4,141.77	4,142.51	4,142.61	4,143.19	4,143.19	4,142.88	4,142.05	4,141.75
28	4,140.13	4,140.61	4,140.36	4,141.12	4,141.98	4,142.60	4,142.59	4,143.03	4,143.14	4,142.84	4,142.02	4,141.73
29	4,140.13	4,140.64	4,140.39	4,141.13	------	4,142.67	4,142.52	4,143.19	4,143.15	4,142.74	4,142.94	4,141.75
30	4,140.07	4,140.56	4,140.38	4,141.15	------	4,142.74	4,142.49	4,143.21	4,143.18	4,142.73	4,141.87	4,141.99
31	4,140.08	------	4,140.39	4,141.16	------	4,142.69	------	4,143.10	------	4,142.79	4,141.92	------
MAX	4,140.13	4,140.64	4,140.70	4,141.16	4,141.98	4,142.74	4,142.98	4,143.45	4,143.19	4,143.24	4,142.94	4,142.09
MIN	4,139.60	4,139.98	4,140.28	4,140.19	4,141.19	4,141.67	4,142.36	4,142.60	4,142.95	4,142.73	4,141.87	4,140.86
(†)	313,600	348,400	332,600	397,700	448,900	527,800	519,800	564,800	573,900	533,200	461,900	451,500
(‡)	+13,100	+34,800	-15,800	+65,100	+51,200	+78,900	-8,000	+45,000	+9,100	-40,700	-71,300	-10,400

CAL YR 1970 MAX 4,143.37 MIN 4,139.60 AC-FT -33,500
WTR YR 1971 MAX 4,143.45 MIN 4,139.60 AC-FT +151,000

† Contents in acre-feet, at end of month, obtained by averaging elevations for last 3 days of month and first 3 days of following month to compensate for wind effect.

‡ Change in contents, in acre-feet.

NOTE.--Elevations above mean sea level, Bureau of Reclamation datum.

11507500 Link River at Klamath Falls, Oreg.

LOCATION.--Lat 42°13'25", long 121°47'35", in SW¼NW¼ sec.32, T.38 S., R.9 E., Klamath County, on right bank 600 ft upstream from outlet of Keno Canal and 0.4 mile upstream from Main Street Bridge at Klamath Falls.

DRAINAGE AREA.--3,810 sq mi, approximately, including 26.2 sq mi in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,083.71 ft above mean sea level, or 4,085.50 ft above mean sea level, datum of Bureau of Reclamation. Prior to Sept. 14, 1912, water-stage recorder or nonrecording gages at several sites within 0.5 mile of present site at various datums. Sept. 14, 1912, to Nov. 23, 1923, at site 600 ft downstream at datum 5.42 ft lower. Nov. 24, 1923, to Nov. 15, 1961, at site on left bank at present datum.

AVERAGE DISCHARGE.--67 years, 1,594 cfs (1,155,000 acre-ft per year), not adjusted for "A" Canal.

EXTREMES.--Current year: Maximum discharge, 6,810 cfs Mar. 30; minimum daily, 130 cfs Oct. 24, 25.
Period of record: Maximum discharge, 9,400 cfs May 12, 1904 (gage height at Main Street Bridge, 7.30 ft, datum then in use, from floodmarks); minimum daily, 17 cfs Dec. 13, 1937.

REMARKS.--Records good. Flow regulated since 1919 by Upper Klamath Lake (see station 11507000). Large diurnal fluctuation caused by powerplant above station. Water diverted above station by main or "A" Canal of Klamath project (see station 11506000). Many other diversions above lake. All records presented herein include flow in Keno Canal which, since September 1908, has diverted from Upper Klamath Lake at Link River Dam for power generation, and returns flow to Link River below station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	721	882	2,120	2,510	2,360	2,690	6,410	1,660	3,810	299	634	532
2	694	1,250	2,520	2,220	2,120	2,610	5,890	1,660	3,810	265	554	505
3	250	1,420	3,010	2,440	2,150	2,460	5,090	1,600	3,810	267	604	412
4	139	1,410	3,480	2,490	2,220	2,470	5,170	688	3,800	272	604	410
5	1,080	1,590	4,150	2,490	2,160	2,370	4,710	447	3,790	271	429	411
6	1,160	1,760	3,940	2,510	2,180	2,330	3,670	775	3,780	268	436	415
7	1,270	1,700	3,300	2,810	2,250	2,340	3,110	1,720	3,320	268	441	414
8	1,400	1,430	2,800	2,770	2,210	2,330	3,410	2,780	2,670	296	442	425
9	1,180	1,710	3,250	2,390	2,290	2,290	2,520	3,830	2,020	281	438	417
10	242	2,220	3,400	1,400	2,290	1,930	2,170	4,150	1,290	332	565	425
11	181	2,130	3,670	1,880	2,280	1,970	3,180	4,410	943	295	706	423
12	1,110	1,950	3,900	2,410	2,280	2,030	4,410	4,410	612	268	839	423
13	1,260	2,060	3,870	2,420	2,290	2,030	5,170	4,440	526	267	923	424
14	1,160	2,080	3,650	2,420	2,140	2,130	5,370	4,480	518	265	740	448
15	1,270	2,060	3,010	2,150	2,150	2,160	5,380	4,530	518	294	662	517
16	1,350	2,230	2,630	2,000	2,160	2,040	5,340	4,560	763	371	554	457
17	421	2,490	2,820	1,310	2,160	1,860	5,390	4,530	1,440	435	417	692
18	164	2,490	2,670	590	2,160	1,630	5,420	4,520	1,460	318	451	719
19	1,320	2,470	2,660	1,150	2,190	2,140	5,330	4,190	1,040	264	788	721
20	1,400	2,470	2,660	2,020	2,170	2,280	5,410	3,770	763	307	801	654
21	1,120	2,470	2,660	2,590	2,170	2,270	5,360	3,810	744	361	707	628
22	841	2,470	2,460	3,320	2,270	2,230	5,340	3,710	846	526	720	624
23	226	2,470	2,320	3,690	2,290	740	5,170	3,690	897	615	696	530
24	130	2,250	2,400	3,710	2,300	318	5,010	3,280	1,140	658	583	857
25	130	2,120	2,430	3,720	2,330	664	4,940	2,040	1,020	657	514	890
26	579	2,000	2,360	3,730	2,300	2,760	4,770	2,340	568	658	703	980
27	1,190	1,720	2,360	3,730	2,400	4,210	4,330	2,760	290	656	768	981
28	1,420	1,770	2,250	3,480	2,510	5,640	4,100	3,420	254	827	723	646
29	1,420	1,930	2,340	2,750	------	6,260	3,350	3,870	317	932	724	562
30	1,410	2,110	2,430	2,450	------	6,550	2,520	3,840	410	926	719	489
31	910	------	2,510	2,450	------	6,480	------	3,820	------	923	629	------
TOTAL	27,148	59,112	90,030	78,000	62,770	82,212	137,440	99,730	47,169	13,642	19,514	17,031
MEAN	876	1,970	2,904	2,516	2,242	2,652	4,581	3,217	1,572	440	629	568
MAX	1,420	2,490	4,150	3,730	2,510	6,550	6,410	4,560	3,810	932	923	981
MIN	130	882	2,120	590	2,120	318	2,170	447	254	264	417	410
AC-FT	53,850	117,200	178,600	154,700	124,500	163,100	272,600	197,800	93,560	27,060	38,710	33,780
MEAN†	1,148	1,970	2,904	2,516	2,242	2,653	4,672	3,698	2,319	1,406	1,551	1,253
AC-FT†	70,610	117,200	178,600	154,700	124,500	163,100	278,000	227,400	138,000	86,460	95,360	74,570

CAL YR 1970 TOTAL 593,767.0 MEAN 1,627 MAX 4,150 MIN 108 AC-FT 1,178,000 MEAN† 2,014 AC-FT† 1,458,000
WTR YR 1971 TOTAL 733,798.0 MEAN 2,010 MAX 6,550 MIN 130 AC-FT 1,455,000 MEAN† 2,359 AC-FT† 1,708,000

† Adjusted for diversion by "A" Canal.

11509500 Klamath River at Keno, Oreg.

LOCATION.--Lat 42°08'00", long 121°57'40", in NW¼SE¼ sec.35, T.39 S., R.7 E., Klamath County, on left bank 1.7 miles northwest of Keno and 4.5 miles upstream from Spencer Creek.

DRAINAGE AREA.--3,920 sq mi, approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--June 1904 to December 1913, October 1929 to current year. Monthly discharge only October to December 1929, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 3,961 ft above mean sea level (from river-profile survey). See WSP 1735 for history of changes prior to Nov. 6, 1954.

AVERAGE DISCHARGE.--51 years, 1,679 cfs (1,216,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,560 cfs Mar. 27 (gage height, 11.87 ft); minimum, 244 cfs July 29; minimum daily, 249 cfs July 28.

Period of record: Maximum discharge, 8,920 cfs Jan. 29, 1970 (gage height, 12.08 ft); minimum, 26 cfs Sept. 23, 1956; minimum daily, 60 cfs May 19, 1934.

Maximum stage, 15.3 ft, from floodmark (original datum), about May 10, 1904 (discharge, 9,250 cfs).

REMARKS.--Records good. Flow regulated since 1919 by Upper Klamath Lake (see station 11507000). Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,180	1,140	2,530	2,580	2,610	2,600	7,040	2,440	3,960	300	265	1,130
2	1,080	1,560	2,940	2,560	2,520	2,650	7,140	2,210	4,070	255	265	1,070
3	603	1,810	3,410	2,550	2,540	2,640	6,300	1,960	4,260	256	265	986
4	408	1,800	3,880	2,550	2,590	2,630	5,680	1,170	4,360	322	264	984
5	961	1,910	4,440	2,560	2,590	2,590	5,430	1,410	4,350	392	261	973
6	1,180	2,210	4,460	2,570	2,580	2,600	4,360	1,820	4,340	309	260	979
7	1,390	2,200	4,480	2,620	2,580	2,590	3,810	2,530	3,810	305	260	1,010
8	1,520	1,880	4,470	2,640	2,580	2,590	3,720	3,810	2,880	304	260	1,040
9	1,100	2,180	4,430	2,350	2,580	2,600	3,920	4,890	1,710	301	260	1,100
10	489	2,600	4,410	1,280	2,590	2,590	3,160	4,960	850	299	303	1,170
11	392	2,520	4,390	2,170	2,590	2,580	2,600	5,340	598	300	392	1,160
12	1,310	2,510	4,400	2,540	2,590	2,590	3,920	5,590	360	297	418	1,270
13	1,340	2,500	4,410	2,460	2,600	2,580	5,870	5,190	355	296	645	1,290
14	1,420	2,500	4,150	2,400	2,590	2,550	6,520	5,040	393	294	641	1,200
15	1,580	2,500	3,590	2,230	2,590	2,510	6,440	5,010	430	302	535	1,050
16	1,470	2,670	3,250	2,200	2,590	2,520	6,340	5,020	348	295	493	858
17	499	2,860	3,110	1,880	2,590	2,510	6,480	5,010	350	254	388	1,230
18	335	2,780	2,930	2,370	2,590	2,420	6,770	4,850	357	254	385	1,280
19	1,290	2,730	2,940	3,480	2,590	2,530	6,760	4,220	348	253	813	1,280
20	1,600	2,730	2,920	4,050	2,590	2,590	6,710	3,720	352	253	939	1,300
21	1,260	2,740	2,780	4,030	2,580	2,590	6,730	3,880	351	253	845	1,320
22	911	2,750	2,620	4,030	2,580	2,510	6,710	3,980	351	252	833	1,310
23	541	2,750	2,590	4,050	2,580	2,300	6,500	3,980	353	253	877	1,300
24	542	2,660	2,560	4,070	2,580	2,950	6,110	3,260	351	252	903	1,310
25	533	2,550	2,570	4,080	2,570	3,820	6,150	1,710	354	253	911	1,310
26	861	2,550	2,570	4,090	2,570	5,440	6,020	2,380	393	252	1,230	1,320
27	1,580	2,560	2,540	4,070	2,570	7,380	5,310	2,840	761	250	1,310	1,330
28	1,760	2,550	2,560	3,980	2,570	8,190	4,950	3,500	958	249	1,340	1,210
29	1,760	2,540	2,560	3,150	------	8,100	4,160	4,430	496	250	1,340	1,060
30	1,630	2,530	2,560	2,730	------	7,960	3,600	4,500	447	264	1,350	1,220
31	1,150	------	2,570	2,730	------	7,470	------	4,100	------	265	1,340	------
TOTAL	33,675	71,770	104,020	91,050	72,270	110,170	165,210	114,750	43,296	8,634	20,591	35,050
MEAN	1,086	2,392	3,355	2,937	2,581	3,554	5,507	3,702	1,443	279	664	1,168
MAX	1,760	2,860	4,480	4,090	2,610	8,190	7,140	5,590	4,360	392	1,350	1,330
MIN	335	1,140	2,530	1,280	2,520	2,300	2,600	1,170	348	249	260	858
AC-FT	66,790	142,400	206,300	180,600	143,300	218,500	327,700	227,600	85,880	17,130	40,840	69,520

CAL YR 1970 TOTAL 694,081 MEAN 1,902 MAX 8,580 MIN 237 AC-FT 1,377,000
WTR YR 1971 TOTAL 870,486 MEAN 2,385 MAX 8,190 MIN 249 AC-FT 1,727,000

11510700 Klamath River below John C. Boyle powerplant, near Keno, Oreg.

LOCATION.--Lat 42°05'05", long 122°04'20", in SE¼SE¼ sec.14, T.40 S., R.6 E., Klamath County, on right bank 0.7 mile downstream from John C. Boyle powerplant, 8 miles downstream from Spencer Creek, and 8.5 miles southwest of Keno.

DRAINAGE AREA.--4,080 sq mi, approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--January 1959 to current year. Prior to Oct. 1, 1961, published as "below Big Bend powerplant."

GAGE.--Water-stage recorder. Datum of gage is 3,274.82 ft above mean sea level (levels by Pacific Power & Light Co.).

AVERAGE DISCHARGE.--12 years, 1,815 cfs (1,315,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,270 cfs Mar. 27 (gage height, 8.66 ft); minimum, 327 cfs Oct. 10; minimum daily, 374 cfs Aug. 7.

Period of record: Maximum discharge, 9,480 cfs Jan. 27, 1970 (gage height, 8.73 ft); minimum, 283 cfs Feb. 17, 1968; minimum daily, 317 cfs July 25, 1968.

REMARKS.--Records excellent. Flow regulated by Upper Klamath Lake (see station 11507000). Large diurnal fluctuation caused by John C. Boyle powerplant and 2 powerplants below Upper Klamath Lake. Large diversions for irrigation above station (see REMARKS for station at Keno, station 11509500).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,470	1,180	2,670	2,900	2,740	2,670	6,870	2,800	4,150	662	381	1,570
2	1,420	1,800	2,850	2,900	2,660	2,660	7,060	2,570	4,120	698	571	1,210
3	465	1,900	3,340	2,900	2,660	2,660	6,250	2,520	4,470	469	570	1,480
4	465	2,010	3,580	3,380	2,670	2,670	5,440	2,010	4,440	620	572	1,260
5	1,280	1,900	4,160	3,670	2,650	2,670	5,270	1,840	4,400	681	569	1,270
6	1,470	2,220	4,150	3,550	2,650	2,660	4,420	2,260	4,400	688	754	1,260
7	1,470	2,240	4,170	3,530	2,650	2,660	3,940	2,460	4,030	590	374	1,270
8	1,860	2,010	4,190	3,540	2,660	2,660	3,690	4,130	3,220	702	380	1,260
9	1,430	2,250	4,140	3,590	2,660	2,630	3,960	5,030	2,230	595	666	1,300
10	407	2,600	4,130	3,580	2,660	2,660	3,210	5,100	1,240	624	672	1,570
11	439	2,610	4,130	2,280	2,660	2,660	3,010	5,390	1,110	612	765	1,560
12	1,620	2,610	4,130	2,630	2,660	2,670	3,780	5,630	441	610	703	1,560
13	1,470	2,600	4,130	2,600	2,670	2,660	5,660	5,550	445	592	1,080	1,560
14	1,490	2,600	3,990	2,600	2,670	2,660	6,460	5,220	978	581	940	1,560
15	1,880	2,600	3,550	2,270	2,690	2,660	6,390	5,110	710	447	678	1,050
16	1,830	2,580	3,180	2,240	2,690	2,670	6,260	5,120	620	705	941	767
17	408	2,730	3,120	1,840	2,470	2,670	6,410	5,180	908	529	385	1,620
18	431	2,830	2,920	2,620	2,690	2,650	6,810	4,990	931	542	383	1,600
19	1,610	2,820	2,920	3,370	2,670	2,660	6,850	4,500	480	585	1,330	1,600
20	1,870	2,830	2,920	4,030	2,670	2,260	6,800	3,850	490	521	1,560	1,600
21	1,470	2,820	2,920	3,940	2,660	2,670	6,800	3,890	723	587	1,190	1,590
22	1,160	2,810	2,910	3,850	2,660	2,650	6,780	4,120	684	513	784	1,590
23	1,010	2,820	2,940	3,880	2,670	2,620	6,660	4,130	814	459	1,200	1,600
24	717	2,760	2,940	3,940	2,670	2,970	6,160	3,640	793	383	1,220	1,560
25	436	2,690	2,940	3,940	2,680	3,890	6,110	2,370	748	385	1,100	1,560
26	1,510	2,680	2,940	3,940	2,670	5,220	6,050	2,390	480	582	1,580	1,560
27	1,570	2,670	2,940	3,900	2,660	7,340	5,250	3,180	1,140	593	1,570	1,560
28	1,860	2,670	2,940	3,880	2,660	8,470	4,980	3,590	1,250	574	1,570	1,560
29	1,850	2,670	2,890	3,210	-------	8,510	4,480	4,550	1,030	610	1,570	1,070
30	1,890	2,670	2,910	2,800	-------	8,360	3,900	4,580	774	924	1,580	1,570
31	1,150	-------	2,900	2,800	-------	7,690	-------	4,300	-------	375	1,580	-------
TOTAL	39,408	74,180	104,540	100,100	74,530	113,210	165,710	122,000	52,249	18,038	29,218	43,147
MEAN	1,271	2,473	3,372	3,229	2,662	3,652	5,524	3,935	1,742	582	943	1,438
MAX	1,890	2,830	4,190	4,030	2,740	8,510	7,060	5,630	4,470	924	1,580	1,620
MIN	407	1,180	2,670	1,840	2,470	2,260	3,010	1,840	441	375	374	767
AC-FT	78,170	147,100	207,400	198,500	147,800	224,600	328,700	242,000	103,600	35,780	57,950	85,580

CAL YR 1970 TOTAL 745,785 MEAN 2,043 MAX 8,930 MIN 350 AC-FT 1,479,000
WTR YR 1971 TOTAL 936,330 MEAN 2,565 MA. 8,510 MIN 374 AC-FT 1,857,000

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CALIF.

LOCATION.--Lat 41°55'41", long 122°26'35", in SE¼NE¼ sec.17, T.47 N., R.5 W., Siskiyou County, on left bank 0.1 mile downstream from Bogus Creek, 0.6 mile downstream from Iron Gate Dam, and 5.9 miles northeast of Hornbrook.

DRAINAGE AREA.--4,630 sq mi, approximately (excludes Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft above mean sea level (levels by Pacific Power and Light Co.).

AVERAGE DISCHARGE.--11 years, 2,202 cfs (1,595,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,800 cfs Mar. 28 (gage height, 8.68 ft); minimum daily, 709 cfs July 25.

Period of record: Maximum discharge, 29,400 cfs Dec. 22, 1964 (gage height, 13.63 ft), from rating curve extended above 12,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 647 cfs Nov. 6, 1960, Sept. 24, Oct. 1, 1961.

REMARKS.--Records excellent. Complete regulation by Upper Klamath Lake (capacity, 584,000 acre-ft), other smaller reservoirs, and diversions above station. Iron Gate Dam, 0.6 mile upstream is a re-regulating reservoir (see sta 11516510). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,320	1,770	3,470	3,300	3,520	3,240	8,270	3,690	4,840	830	1,010	1,320
2	1,330	1,770	3,480	3,170	3,530	3,240	7,810	3,420	4,840	836	1,020	1,320
3	1,330	1,770	4,210	3,090	3,490	3,250	7,930	2,840	5,020	836	1,020	1,320
4	1,320	1,770	4,480	3,130	3,490	3,260	7,140	3,080	5,180	836	1,020	1,320
5	1,310	1,700	5,170	2,960	3,640	3,240	7,160	3,450	5,100	836	1,000	1,320
6	1,330	1,770	5,380	2,920	3,640	3,240	6,540	3,550	5,080	836	1,000	1,320
7	1,340	2,270	6,420	3,120	3,580	3,250	5,680	4,200	4,640	836	1,010	1,320
8	1,340	2,610	5,860	3,140	3,560	3,010	5,340	5,640	3,420	830	1,010	1,320
9	1,340	2,770	5,480	3,090	3,520	3,330	5,680	6,580	3,050	830	1,010	1,320
10	1,310	2,990	5,150	2,110	3,460	3,250	5,340	6,800	2,700	830	1,010	1,320
11	1,300	3,200	5,090	2,490	3,470	3,490	4,670	6,660	2,180	824	1,020	1,310
12	1,300	3,450	5,040	3,260	3,520	4,230	4,920	6,660	1,430	819	1,020	1,310
13	1,300	3,380	5,000	3,190	3,590	3,960	7,350	6,730	1,080	819	1,020	1,320
14	1,310	3,260	5,000	3,240	3,630	3,830	7,880	5,640	915	814	1,020	1,620
15	1,320	3,230	4,540	3,840	3,660	3,790	7,880	6,080	820	814	1,020	1,710
16	1,330	3,070	4,210	4,410	3,550	3,770	7,640	6,210	820	802	1,020	1,710
17	1,320	3,070	3,970	5,800	3,460	3,670	7,810	6,140	820	758	1,020	1,710
18	1,310	3,030	3,500	6,040	3,280	3,630	7,900	6,120	826	758	1,020	1,710
19	1,300	3,090	3,350	5,720	3,290	3,470	8,070	5,540	820	753	1,020	1,720
20	1,310	3,090	3,360	5,780	3,310	3,070	8,050	4,650	820	720	1,020	1,720
21	1,330	3,070	3,380	5,340	3,310	3,110	7,950	4,620	820	720	1,020	1,720
22	1,330	3,120	3,300	5,040	3,320	3,770	7,880	5,280	820	720	1,020	1,720
23	1,330	3,130	3,230	4,950	3,310	4,750	7,930	5,540	826	714	1,010	1,720
24	1,310	3,790	3,170	4,930	3,280	4,780	7,260	4,640	826	714	1,010	1,720
25	1,300	3,970	3,160	4,880	3,290	6,340	7,090	3,420	838	709	1,000	1,720
26	1,290	3,540	3,140	4,820	3,280	9,590	7,030	2,780	850	714	1,000	1,720
27	1,470	3,700	3,170	4,790	3,280	9,540	6,520	3,490	832	714	1,000	1,720
28	1,750	3,770	3,230	4,750	3,260	10,600	6,010	3,910	856	714	1,010	1,730
29	1,750	3,560	3,230	4,140	------	9,930	5,750	5,600	1,500	720	1,010	1,720
30	1,760	3,670	3,260	3,520	------	9,880	5,120	5,750	1,170	726	1,020	1,700
31	1,770	------	3,340	3,530	------	9,520	------	5,440	------	736	1,030	------
TOTAL	42,760	88,690	127,770	124,490	96,520	151,030	207,660	154,150	63,739	24,118	31,440	46,230
MEAN	1,379	2,953	4,122	4,016	3,447	4,872	6,922	4,973	2,125	778	1,014	1,541
MAX	1,770	3,970	6,420	6,040	3,660	10,600	8,270	6,800	5,180	836	1,030	1,730
MIN	1,290	1,770	3,140	2,110	3,260	3,010	4,670	2,780	820	709	1,000	1,310
AC-FT	84,810	175,700	253,400	246,900	191,400	299,600	411,900	305,800	126,400	47,840	62,360	91,700

CAL YR 1970 TOTAL 923,501 MEAN 2,530 MAX 12,700 MIN 694 AC-FT 1,832,000
WTR YR 1971 TOTAL 1,158,507 MEAN 3,174 MAX 10,600 MIN 709 AC-FT 2,298,000

12472800 Columbia River below Priest Rapids Dam, Wash.

LOCATION.--Lat 46°37'44", long 119°51'49", in SE¼NW¼ sec.7, T.13 N., R.24 E., Grant County, on left bank 2.6 miles downstream from Priest Rapids Dam, 14.7 miles south of Beverly, and at mile 394.5.

DRAINAGE AREA.--96,000 sq mi, approximately.

PERIOD OF RECORD.--January 1917 to current year. January 1917 to September 1930, at site 3.4 miles downstream, published as "at Vernita." October 1930 to July 27, 1959, at site 46.5 miles upstream, published as "at Trinidad."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 1, 1930, nonrecording gages at ferry at Vernita (3.4 miles downstream) at datum 388.7 ft above mean sea level, unadjusted. Oct. 1, 1930, to July 27, 1959, water-stage recorder at Trinidad (46.5 miles upstream) at datum 499.3 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--54 years, 120,200 cfs (87,080,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 360,000 cfs June 17 (elevation, 420.08 ft); minimum, 34,800 cfs Dec. 25 (elevation, 396.00 ft), but may have been less during period of no gage-height record Nov. 13 to Dec. 10.

Period of record: Maximum discharge, 692,600 cfs June 12, 1948 (gage height, 59.35 ft, site and datum then in use); minimum, 4,120 cfs Feb. 10, 1932 (gage height, 11.40 ft, site and datum then in use).

Flood of June 7, 1894, reached a discharge of about 740,000 cfs (based on information obtained at other points).

REMARKS.--Records excellent. Diversion above station for irrigation of about 500,000 acres is small percentage of flow past gage. Flow regulated by Franklin D. Roosevelt Lake 202.1 miles upstream (see sta 12436000), Rufus Woods Lake 150.8 miles upstream (see sta 12437900), Priest Rapids reservoir, and other reservoirs in Columbia, Kootenai, Flathead, Pend Oreille, Spokane, Okanogan, and Chelan River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69,500	62,800	90,600	53,800	74,200	134,000	117,000	125,000	293,000	265,000	171,000	90,000
2	63,900	72,600	74,300	76,300	88,300	125,000	128,000	162,000	295,000	260,000	177,000	93,600
3	54,600	79,500	73,200	58,000	93,700	157,000	93,500	231,000	296,000	249,000	185,000	103,000
4	60,100	89,600	88,300	94,100	103,000	153,000	102,000	247,000	300,000	232,000	170,000	71,300
5	80,900	95,200	69,600	111,000	86,000	143,000	123,000	240,000	298,000	234,000	184,000	69,900
6	85,500	84,500	66,200	102,000	60,700	141,000	135,000	248,000	304,000	232,000	189,000	57,400
7	91,800	58,700	68,300	78,100	43,400	123,000	130,000	251,000	310,000	229,000	151,000	88,600
8	69,400	53,500	76,300	79,700	81,300	139,000	121,000	271,000	309,000	220,000	153,000	79,700
9	94,000	68,800	83,100	61,700	99,700	144,000	117,000	271,000	312,000	212,000	176,000	77,400
10	61,300	72,000	87,700	62,500	87,400	145,000	120,000	267,000	306,000	211,000	175,000	80,100
11	45,800	71,000	87,600	91,200	78,400	140,000	102,000	267,000	299,000	208,000	167,000	48,800
12	77,500	80,200	63,100	103,000	74,600	145,000	134,000	275,000	296,000	194,000	167,000	49,200
13	93,500	96,700	47,800	107,000	59,000	133,000	145,000	278,000	302,000	210,000	152,000	72,200
14	88,000	74,600	93,700	73,100	73,300	143,000	133,000	281,000	289,000	209,000	115,000	71,800
15	96,400	74,500	75,600	62,500	99,700	155,000	146,000	296,000	282,000	206,000	126,000	79,000
16	93,900	76,800	68,300	54,600	89,800	157,000	143,000	308,000	320,000	194,000	135,000	82,000
17	58,600	92,400	70,300	53,700	98,600	155,000	114,000	293,000	341,000	194,000	123,000	74,900
18	52,800	87,700	108,000	67,800	133,000	138,000	104,000	292,000	339,000	199,000	128,000	46,300
19	88,900	62,100	84,900	66,900	113,000	102,000	130,000	285,000	316,000	204,000	131,000	46,900
20	69,300	66,800	49,900	80,600	99,500	93,700	158,000	279,000	297,000	201,000	111,000	61,300
21	75,600	51,800	85,400	83,800	95,300	114,000	156,000	280,000	300,000	209,000	66,900	94,700
22	81,300	66,100	108,000	70,900	105,000	142,000	126,000	281,000	305,000	188,000	53,800	103,000
23	69,500	88,100	109,000	37,100	104,000	129,000	129,000	282,000	290,000	189,000	97,400	71,000
24	67,600	83,500	60,000	37,600	117,000	143,000	113,000	279,000	299,000	212,000	103,000	78,900
25	70,300	86,900	38,800	53,200	141,000	142,000	99,100	286,000	291,000	207,000	104,000	71,200
26	96,700	60,900	59,400	58,500	123,000	129,000	86,400	299,000	290,000	203,000	105,000	62,600
27	91,800	55,600	59,300	85,100	115,000	101,000	110,000	297,000	289,000	192,000	124,000	74,100
28	77,100	47,700	94,100	68,700	124,000	77,900	110,000	290,000	278,000	169,000	84,900	81,900
29	65,700	74,500	98,300	59,000	------	123,000	104,000	302,000	265,000	163,000	61,400	77,900
30	79,000	101,000	74,700	42,300	------	136,000	115,000	309,000	235,000	163,000	97,700	74,300
31	60,200	------	76,800	43,600	------	123,000	------	293,000	------	178,000	105,000	------
TOTAL	2,330.5M	2,236.1M	2,390.6M	2,177.4M	2,660.9M	4,125.6M	3,644.0M	8,365.0M	8,946.0M	6,436.0M	4,089.1M	2,233.0M
MEAN	75,180	74,540	77,120	70,240	95,030	133,100	121,500	269,800	298,200	207,600	131,900	74,430
MAX	96,700	101,000	109,000	111,000	141,000	157,000	158,000	309,000	341,000	265,000	189,000	103,000
MIN	45,800	47,700	38,800	37,100	43,400	77,900	86,400	125,000	235,000	163,000	53,800	46,300
AC-FT	4,623M	4,435M	4,742M	4,319M	5,278M	8,183M	7,228M	16,590M	17,740M	12,770M	8,111M	4,429M

CAL YR 1970 TOTAL 35,864,200 MEAN 98,260 MAX 245,000 MIN 38,400 AC-FT 71,140,000
WTR YR 1971 TOTAL 49,634,200 MEAN 136,000 MAX 341,000 MIN 37,100 AC-FT 98,450,000

13172500 Snake River near Murphy, Idaho

LOCATION.--Lat 43°17'30", long 116°25'12", in SE¼ sec.35, T.1 S., R.1 W., Ada County, on right bank 4.2 miles downstream from Swan Falls powerplant, 7.5 miles northeast of Murphy, and at mile 453.5.

DRAINAGE AREA.--41,900 sq mi, approximately.

PERIOD OF RECORD.--August to October 1912, August 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,271.17 ft above mean sea level. Prior to Sept. 7, 1914, nonrecording gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder at site 3.5 miles upstream at datum 9.79 ft higher.

AVERAGE DISCHARGE.--58 years, 10,820 cfs (7,839,000 acre-ft per year); 15-year base period (1952-67), 10,070 cfs.

EXTREMES.--Current year: Maximum discharge, 35,000 cfs Apr. 28 (gage height, 12.21 ft); minimum, 6,430 cfs July 13 (gage height, 3.14 ft); minimum daily, 7,030 cfs July 25.

Period of record: Maximum discharge, 47,300 cfs June 22, 1918 (gage height, 13.95 ft, site and datum then in use); minimum recorded, 3,900 cfs July 9, 1949 (gage height, 2.53 ft); minimum daily, 5,440 cfs Aug. 4, 1914.

REMARKS.--Records excellent. Major regulation by American Falls Reservoir 260.5 miles upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 2,590,000 acres of which about 701,000 acres are by withdrawals from ground water (1966 determination).

REVISIONS (WATER YEARS).--WSP 1737: 1933(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.4	6,970	8.0	20,400
4.0	8,320	10.0	27,300
6.0	13,900	12.0	34,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,890	12,400	12,600	15,400	18,500	10,900	24,800	29,000	17,600	23,300	7,160	8,240
2	10,000	12,700	13,100	15,400	18,400	12,200	28,500	28,700	19,100	21,700	7,100	8,960
3	9,890	10,300	13,300	15,500	18,900	12,600	28,600	28,500	18,300	21,900	7,130	8,050
4	9,540	10,300	12,600	15,500	18,800	12,500	27,700	28,000	23,700	20,700	7,270	7,990
5	9,280	10,300	13,700	13,800	17,200	13,400	25,300	27,900	22,800	19,600	7,290	8,620
6	9,810	10,200	14,200	11,900	17,000	14,600	25,900	27,900	23,500	14,200	7,320	8,530
7	9,750	10,800	13,500	12,900	17,000	12,900	25,100	29,200	23,800	15,200	7,260	8,860
8	9,540	11,300	14,100	14,700	17,200	13,400	27,700	29,800	24,700	14,300	7,260	8,820
9	9,510	11,500	17,500	15,500	17,300	13,000	26,800	30,200	23,500	13,400	7,290	9,190
10	9,330	11,900	15,500	16,000	18,600	13,800	28,900	30,100	21,500	13,900	7,500	9,130
11	9,810	11,500	15,500	14,000	18,200	12,900	30,000	30,100	19,900	11,100	7,450	9,450
12	10,500	12,700	13,100	15,500	16,900	13,000	29,900	30,500	19,000	10,700	7,330	8,370
13	12,500	11,200	13,900	16,800	18,200	13,200	30,700	31,100	17,700	8,720	7,430	8,580
14	11,900	11,500	14,300	15,600	17,800	13,800	30,300	30,000	18,100	7,160	7,480	8,810
15	10,900	13,400	14,300	15,100	18,300	13,500	29,500	31,100	18,800	7,570	7,470	8,730
16	12,500	12,500	14,000	15,400	18,300	12,600	29,200	30,300	17,400	8,460	7,470	8,340
17	12,200	12,300	13,900	22,000	18,100	12,900	29,100	30,700	19,200	7,270	7,280	9,030
18	12,200	12,600	14,900	28,100	17,900	13,100	26,600	28,600	20,000	7,370	7,410	8,710
19	12,200	12,600	13,900	32,900	18,700	13,700	29,100	28,600	17,500	7,270	7,550	8,580
20	13,000	12,600	14,200	30,400	17,900	14,100	30,800	28,400	14,400	7,140	7,420	8,950
21	12,500	12,800	14,700	26,500	17,500	13,800	29,800	25,800	14,200	7,110	7,420	9,210
22	12,400	12,500	13,600	20,000	17,600	13,300	29,000	27,100	15,800	7,130	7,540	9,920
23	13,000	11,900	12,400	20,300	17,300	16,000	28,100	27,000	16,800	7,230	7,150	9,980
24	13,200	13,200	14,500	19,600	17,500	13,100	28,200	27,200	14,200	7,130	7,140	9,590
25	12,400	13,400	13,900	19,000	15,600	19,400	29,200	25,300	14,800	7,030	7,380	9,540
26	12,700	13,400	14,000	18,400	13,500	14,700	29,300	19,900	15,800	7,280	7,610	9,170
27	13,000	12,500	15,200	18,200	13,500	17,500	33,300	20,200	17,500	7,500	7,320	9,410
28	12,400	13,600	15,400	18,100	12,800	16,800	33,600	21,900	18,000	7,520	7,320	9,860
29	12,300	12,700	15,300	19,300	------	18,900	31,800	20,900	20,700	7,500	7,370	9,830
30	13,000	12,700	15,400	18,600	------	16,800	31,600	19,500	21,300	7,310	7,680	9,800
31	13,000	------	15,300	18,000	------	21,800	------	17,700	------	7,190	8,130	------
TOTAL	354,150	363,300	441,800	568,400	484,500	444,200	868,400	841,200	569,600	340,890	228,930	270,250
MEAN	11,420	12,110	14,250	18,340	17,300	14,330	28,950	27,140	18,990	11,000	7,385	9,008
MAX	13,200	13,600	17,500	32,900	18,900	21,800	33,600	31,100	24,700	23,300	8,130	9,980
MIN	9,280	10,200	12,400	11,900	12,800	10,900	24,800	17,700	14,200	7,030	7,100	7,990
AC-FT	702,500	720,600	876,300	1,127M	961,000	881,100	1,722M	1,669M	1,130M	676,200	454,100	536,000

CAL YR 1970 TOTAL 4,228,150 MEAN 11,580 MAX 24,600 MIN 6,510 AC-FT 8,387,000
WTR YR 1971 TOTAL 5,775,620 MEAN 15,820 MAX 33,600 MIN 7,030 AC-FT 11,460,000

13178000 Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

LOCATION.--Lat 42°52'27", long 116°57'12", in SW¼NE¼ sec.29, T.6 S., R.5 W., Boise meridian, Owyhee County, on right bank 0.2 mile upstream from Morgan Ranchhouse, 0.9 mile downstream from proposed damsite, 1.4 miles downstream from Williams Creek, 3.6 miles upstream from Lone Tree Creek, 4 miles east of the Idaho-Oregon State line, 9 miles southeast of Jordan Valley, and at mile 54.4.

DRAINAGE AREA.--440 sq mi, approximately. Mean altitude, 5,780 ft.

PERIOD OF RECORD.--April 1955 to current year. October 1945 to January 1953 at site 1.6 miles downstream; records equivalent except during late summer months when considerable difference may result from irrigation and return flow between sites.

GAGE.--Water-stage recorder. Datum of gage is 4,499.73 ft above mean sea level, unadjusted. Apr. 23, 1955, to Jan. 31, 1965, at site 0.4 mile upstream at datum 5.73 ft higher. Prior to June 14, 1952, water-stage recorder, and June 14, 1952, to Jan. 31, 1953, nonrecording gage, at site 1.6 miles downstream at different datum. Nonrecording gage at site 3.6 miles downstream at datum 4,404.78 ft above mean sea level, used as supplementary gage Feb. 3 to Aug. 31, 1965.

AVERAGE DISCHARGE.--23 years (1945-52, 1955-71), 195 cfs (141,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,870 cfs Jan. 17 (gage height, 8.52 ft); minimum, 2.2 cfs Sept. 1, 3-4 (gage height, 3.77 ft).

Period of record: Maximum discharge, 7,530 cfs Dec. 24, 1964 (gage height, 11.05 ft, site and datum then in use), from rating curve extended above 4,210 cfs; no flow part of each day Oct. 4, 5, 1948.

REMARKS.--Records fair except those for winter period, which are poor. Diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	31	200	260	540	220	1,280	966	380	137	20	2.4
2	21	31	191	190	535	205	1,190	1,220	414	120	19	2.4
3	21	30	178	185	580	230	1,110	1,380	335	96	19	2.5
4	19	30	186	190	550	220	1,050	1,420	324	87	18	2.4
5	18	31	194	210	485	200	1,040	1,480	339	83	15	2.7
6	18	41	236	230	400	165	1,100	1,450	320	77	12	2.8
7	17	46	312	255	395	185	1,240	1,440	312	75	13	3.0
8	16	46	550	330	385	175	1,230	1,420	316	71	16	3.4
9	17	64	444	500	365	180	1,200	1,230	308	66	16	3.2
10	24	176	339	660	490	190	1,250	1,160	296	61	9.9	3.1
11	21	118	316	630	515	240	1,130	1,130	305	61	9.2	3.2
12	19	153	252	610	475	350	990	1,130	264	59	7.4	3.3
13	18	116	276	600	480	500	894	1,060	238	50	9.9	4.8
14	17	92	287	580	500	580	915	942	225	46	9.2	6.7
15	17	90	245	620	535	520	1,090	804	214	48	7.9	5.5
16	16	80	230	750	540	470	1,130	780	196	46	6.1	3.0
17	16	73	208	1,800	520	450	1,090	684	185	45	6.5	2.9
18	16	72	239	3,700	460	430	974	585	175	45	7.1	2.9
19	17	68	254	2,760	445	420	880	510	164	46	7.3	2.8
20	19	64	267	2,580	410	410	904	466	156	40	7.3	3.7
21	21	65	324	1,650	360	450	936	444	144	42	6.4	4.9
22	21	59	245	1,200	365	610	845	426	133	41	6.1	4.0
23	21	73	190	966	330	1,100	831	405	124	42	3.8	3.9
24	28	273	200	786	340	2,800	804	401	116	40	2.9	3.5
25	24	384	205	672	335	2,400	786	405	113	36	2.9	3.7
26	22	305	200	630	290	2,000	792	426	208	35	2.9	4.3
27	23	220	240	585	280	1,950	708	476	252	31	2.6	6.1
28	21	191	280	535	255	1,900	690	500	238	28	2.5	9.5
29	28	173	290	500	------	1,560	744	458	202	28	2.7	19
30	29	230	285	480	------	1,650	824	422	162	25	2.7	35
31	30	------	280	500	------	1,600	------	401	------	22	2.6	------
TOTAL	636	3,425	8,145	26,164	12,200	24,360	29,647	26,021	7,158	1,729	273.9	160.6
MEAN	20.5	114	263	844	436	786	988	839	239	55.8	8.84	5.35
MAX	30	384	550	3,700	580	2,800	1,280	1,480	414	137	20	35
MIN	16	30	178	185	255	165	690	401	113	22	2.5	2.4
AC-FT	1,260	6,790	16,160	51,900	24,200	48,320	58,800	51,610	14,200	3,430	543	319

CAL YR 1970 TOTAL 90,147.40 MEAN 247 MAX 1,540 MIN .50 AC-FT 178,800
WTR YR 1971 TOTAL 139,919.50 MEAN 383 MAX 3,700 MIN 2.4 AC-FT 277,500

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-17	-	8.52	3,870	5- 6	0300	6.56	1,570
3-24	-	8.10	3,360				

13181000 Owyhee River near Rome, Oreg.

LOCATION.--Lat 42°52'00", long 117°39'00", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, on right bank 0.5 mile downstream from Jordan Creek, 2.6 miles north of Rome, and at mile 117.0.

DRAINAGE AREA.--About 8,000 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft above mean sea level. Prior to Feb. 10, 1960, at datum 0.24 ft lower.

AVERAGE DISCHARGE.--22 years, 859 cfs (622,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,900 cfs Jan. 19 (gage height, 16.51 ft); minimum, 158 cfs Oct. 2, 5.
Period of record: Maximum discharge, 33,500 cfs Dec. 24, 1964 (gage height, 16.7 ft, from floodmark); minimum, 42 cfs Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

REMARKS.--Records good except for July, which are fair. Flow regulated by Antelope Reservoir (capacity, 70,000 acre-ft, increased in 1970) and Wild Horse Reservoir (capacity, 32,690 acre-ft) and numerous small reservoirs. Diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	200	800	450	2,970	910	5,960	2,830	1,760	1,000	224	188
2	160	202	910	418	3,160	810	5,220	2,820	1,970	900	221	182
3	162	205	810	315	3,010	775	4,840	2,930	1,960	850	224	180
4	162	202	740	287	2,350	795	4,520	3,120	1,820	760	224	182
5	162	208	635	259	1,900	790	4,260	3,290	1,590	700	221	190
6	165	210	700	245	1,660	745	4,120	3,430	1,520	660	218	198
7	165	212	825	315	1,460	705	4,170	3,520	1,470	620	221	202
8	168	215	1,780	366	1,350	705	4,280	3,650	1,400	580	230	218
9	168	239	3,840	462	1,320	660	4,320	3,890	1,260	540	230	230
10	172	458	3,670	630	1,330	685	4,140	3,710	1,170	500	230	242
11	180	462	2,000	1,010	1,430	795	4,010	3,650	1,120	470	242	242
12	180	725	1,300	1,060	1,820	1,200	3,860	3,440	1,090	450	248	252
13	178	730	885	1,020	2,240	2,740	3,540	3,300	1,220	420	233	256
14	180	840	625	835	2,520	3,020	3,250	3,230	1,210	390	221	256
15	185	625	538	700	2,660	2,080	3,140	3,220	1,060	370	212	252
16	185	478	530	685	2,800	1,450	3,230	3,090	956	350	205	262
17	185	402	514	3,460	2,260	1,200	3,370	2,850	885	340	202	280
18	185	346	486	17,300	1,840	1,080	3,360	2,670	850	320	198	280
19	185	326	422	26,700	1,610	1,030	3,330	2,520	805	310	192	256
20	188	315	298	21,500	1,500	998	3,280	2,310	745	300	192	230
21	195	301	298	15,000	1,360	1,080	3,250	2,100	715	280	198	190
22	195	290	308	9,180	1,240	1,840	3,130	1,920	660	265	195	190
23	198	290	308	7,500	1,190	3,800	2,970	2,100	625	260	195	185
24	195	615	310	6,000	1,180	15,000	2,860	2,300	565	252	190	188
25	200	2,080	320	4,020	1,140	13,000	2,870	2,150	522	248	190	188
26	208	2,040	350	3,600	1,050	10,200	3,220	1,800	530	248	195	192
27	210	1,820	406	3,260	992	11,700	3,540	1,610	700	230	190	190
28	215	1,190	466	3,190	880	9,040	3,820	1,520	950	233	180	195
29	212	830	466	3,040	------	7,250	3,470	1,520	1,200	230	185	200
30	210	725	466	2,790	------	6,790	3,020	1,530	1,100	227	188	262
31	202	------	466	2,700	------	6,590	------	1,610	------	242	185	------
TOTAL	5,717	17,781	26,472	138,297	50,222	109,463	112,350	83,630	33,428	13,545	6,479	6,558
MEAN	184	593	854	4,461	1,794	3,531	3,745	2,698	1,114	437	209	219
MAX	215	2,080	3,840	26,700	3,160	15,000	5,960	3,890	1,970	1,000	248	280
MIN	160	200	298	245	880	660	2,860	1,520	522	227	180	180
AC-FT	11,340	35,270	52,510	274,300	99,620	217,100	222,800	165,900	66,300	26,870	12,850	13,010

CAL YR 1970 TOTAL 319,360 MEAN 875 MAX 13,900 MIN 131 AC-FT 633,500
WTR YR 1971 TOTAL 603,942 MEAN 1,655 MAX 26,700 MIN 160 AC-FT 1,198,000

PEAK DISCHARGE (BASE, 5,400 CFS).--Jan. 19 (0600) 28,900 cfs (16.51 ft); Mar. 24 (1400) 16,400 cfs (12.57 ft).

13182500 Lake Owyhee near Nyssa, Oreg.

LOCATION.--Lat 43°38'30", long 117°14'30", in NW¼SE¼ sec.20, T.22 S., R.45 E., Malheur County, near left abutment on Owyhee Dam on Owyhee River, 21 miles southwest of Nyssa, and at mile 27.8.

DRAINAGE AREA.--11,160 sq mi, approximately.

PERIOD OF RECORD.--October 1932 to current year. Prior to October 1958, published as Owyhee Reservoir at Owyhee Dam, near Nyssa.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1965, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 1,131,000 acre-ft Jan. 22 (elevation, 2,670.70 ft); minimum, 879,500 acre-ft Sept. 30 (elevation, 2,649.16 ft).

Period of record. Maximum contents observed, 1,140,000 acre-ft Apr. 15, 1952 (elevation, 2,671.50 ft); minimum observed since full capacity was attained on May 7, 1936, 437,000 acre-ft Oct. 1, 1961 (elevation, 2,595.35 ft).

REMARKS.--Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,122,000 acre-ft between elevations 2,367.5 (bottom of sluice gates) and 2,670.0 ft (top of spillway gage), 715,000 acre-ft between elevations, 2,590.2 (diversion tunnel) and 2,670.0 ft. Dead storage below elevation 2,367.5 ft negligible. Figures given herein are contents above elevation 2,367.5 ft. Reservoir generally will not be drawn below elevation 2,590.2 ft (contents, 406,800 acre-ft, which project considers dead storage). Water is released through diversion tunnel to South Canal for irrigation of lands west of Snake River in vicinity of Homedale, Idaho, and to North Canal for irrigation of lands north and west of Owyhee River, and through sluice gates to river for Owyhee Canal, which diverts about 18 miles downstream.

COOPERATION.--Capacity tables furnished by U.S. Bureau of Reclamation.

MONTH-END ELEVATIONS AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,650.55	894,200	-
Oct. 31	2,650.24	890,900	-3,300
Nov. 30	2,653.99	931,600	+40,700
Dec. 31	2,659.13	989,700	+58,100
CAL YR 1970	-	-	+112,800
Jan. 31	2,668.78	1,106,000	+116,300
Feb. 28	2,666.75	1,081,000	-25,000
Mar. 31	2,668.70	1,105,000	+24,000
Apr. 30	2,668.71	1,106,000	+1,000
May 31	2,669.80	1,119,000	+13,000
June 30	2,667.65	1,092,000	-27,000
July 31	2,661.40	1,016,000	-76,000
Aug. 31	2,653.71	928,500	-87,500
Sept.30	2,649.16	879,500	-49,000
WTR YR 1971	-	-	-14,700

13183000 Owyhee River below Owyhee Dam, Oreg.

LOCATION.--Lat 43°39'17", long 117°15'16", in SE¼ sec.18, T.22 S., R.45 E., Malheur County, on left bank 0.8 mile downstream from Owyhee Dam, 20 miles southwest of Nyssa, and at mile 27.0.

DRAINAGE AREA.--11,160 sq mi, approximately.

PERIOD OF RECORD.--February 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,343.67 ft above mean sea level (levels by Bureau of Reclamation)

AVERAGE DISCHARGE.--39 years (1932-71), 325 cfs (235,500 acre-ft per year), not adjusted for storage or diversion.

EXTREMES.--Current year: Maximum discharge, 14,900 cfs Jan. 19 (gage height, 12.93 ft); minimum, 2.8 cfs many days in November and December.

Period of record: Maximum discharge, 22,900 cfs Apr. 15, 1952 (gage height, 15.7 ft); no flow for part of Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

REMARKS.--Records good. Flow regulated since October 1932 by Lake Owyhee (see station 13182500), and by many smaller reservoirs. Diversion of 456,000 acre-ft from Lake Owyhee during the year for irrigation of lands below station and outside the basin. Many smaller diversions for irrigation above station.

COOPERATION.--Water-stage recorder inspected by irrigation district employees.

REVISIONS (WATER YEARS).--WSP 983: 1941-42. WSP 1397: 1930, 1933, 1946.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	3.0	2.8	7.8	3,560	1,050	6,240	2,050	214	100	111	126
2	68	3.0	3.0	7.5	3,500	1,000	6,060	1,770	214	108	111	126
3	69	3.0	3.0	7.5	3,440	800	4,990	999	218	110	112	118
4	69	2.8	2.8	7.5	3,400	730	4,450	471	424	111	114	112
5	68	3.0	2.8	7.5	3,220	730	4,100	196	427	112	120	112
6	70	3.0	2.8	7.2	3,070	730	3,910	198	430	120	128	112
7	70	3.0	3.0	7.2	2,890	730	3,930	200	434	126	128	112
8	70	3.0	3.0	7.2	2,710	730	3,930	200	434	126	130	108
9	70	3.0	2.8	7.2	2,560	662	4,000	785	303	120	130	105
10	57	3.0	2.8	7.2	2,460	483	3,960	1,480	216	117	132	105
11	47	3.0	3.6	7.2	2,280	195	3,910	1,470	216	118	132	100
12	47	3.0	6.8	7.2	2,190	36	3,810	1,660	216	118	132	96
13	46	3.0	8.6	7.2	2,200	36	3,780	1,730	216	118	132	96
14	47	2.8	8.6	7.2	2,260	33	3,310	1,700	216	120	134	96
15	22	2.8	8.6	7.2	2,380	22	2,620	1,720	212	134	134	95
16	4.0	2.8	8.6	7.5	3,260	22	2,440	1,690	206	140	126	95
17	3.6	2.8	8.2	7.8	3,440	22	2,550	1,610	206	141	122	95
18	3.4	2.8	7.8	8.2	3,300	22	2,570	1,550	196	141	122	95
19	3.4	3.0	7.8	3,300	3,030	130	2,640	1,260	188	141	112	95
20	3.6	3.0	7.8	9,860	2,800	228	2,680	944	188	142	111	95
21	3.4	3.0	7.8	11,900	2,290	234	2,720	638	188	142	108	95
22	3.4	3.0	7.8	12,100	2,060	688	2,690	525	153	130	108	83
23	4.0	3.0	7.8	9,440	1,750	1,700	2,640	525	132	128	108	86
24	3.6	3.6	7.8	6,890	1,600	8,120	2,100	518	129	128	101	78
25	3.6	3.0	7.8	5,840	1,570	12,200	1,840	518	123	128	100	78
26	3.4	3.0	7.8	4,980	1,240	12,200	1,880	518	122	128	120	78
27	3.2	2.8	7.8	4,660	1,100	11,600	1,960	518	122	128	134	78
28	3.2	2.8	8.2	4,360	1,050	11,600	2,060	518	106	128	130	71
29	3.2	2.8	8.2	4,160	------	10,600	2,160	352	98	128	126	62
30	3.2	2.8	8.2	3,940	------	9,540	2,160	214	100	121	126	56
31	3.2	------	7.8	3,730	------	7,250	------	214	------	111	126	------
TOTAL	942.4	88.6	192.2	85,293.3	70,610	94,123	98,090	28,741	6,647	3,863	3,760	2,859
MEAN	30.4	2.95	6.20	2,751	2,522	3,036	3,270	927	222	125	121	95.3
MAX	70	3.6	8.6	12,100	3,560	12,200	6,240	2,050	434	142	134	126
MIN	3.2	2.8	2.8	7.2	1,050	22	1,840	196	98	100	100	56
AC-FT	1,870	176	381	169,200	140,100	186,700	194,600	57,010	13,180	7,660	7,460	5,670
MEAN†	257	687	951	4,640	2,070	3,430	3,850	2,630	1,120	359	175	251
AC-FT†	15,830	40,880	58,480	285,500	115,100	210,700	229,130	161,510	66,630	22,050	10,750	14,920

CAL YR 1970 TOTAL 62,261.3 MEAN 171 MAX 1,660 MIN 2.1 AC-FT 123,500 MEAN† 956 AC-FT† 692,050
WTR YR 1971 TOTAL 395,209.5 MEAN 1,083 MAX 12,200 MIN 2.8 AC-FT 783,900 MEAN† 1,700 AC-FT† 1,231,477

† Adjusted for diversions from Lake Owyhee and change in lake contents.

MALHEUR RIVER BASIN

13214000 Malheur River near Drewsey, Oreg.

LOCATION (revised).--Lat 43°47'05", long 118°19'50", in NE¼SE¼ sec.31, T.20 S., R.36 E., Harney County, on left bank 300 ft downstream from bridge on U.S. Highway 20, 0.5 mile downstream from Cottonwood Creek, 3.0 miles southeast of Drewsey, and at mile 126.

DRAINAGE AREA.--910 sq mi, approximately.

PERIOD OF RECORD.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to current year. Monthly discharge only for some periods, published in WSP 1317. March to September 1914 at site 13 miles upstream; records not equivalent owing to inflow from several creeks.

GAGE.--Water-stage recorder. Datum of gage is 3,479.13 ft above mean sea level. Prior to Apr. 27, 1923, water-stage recorder or nonrecording gage at site 0.5 mile downstream at different datum. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 miles downstream at different datum.

AVERAGE DISCHARGE.--45 years (1926-71), 178 cfs (129,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,600 cfs Jan. 18 (gage height, 11.33 ft); minimum, 7.0 cfs Aug. 13.
Period of record: Maximum discharge, 12,000 cfs Dec. 23, 1964 (gage height, 13.50 ft), from rating curve extended above 4,500 cfs on basis of contracted-opening measurement at gage height 13.20 ft; no flow at times.

REMARKS.--Records good. Slight regulation by small reservoirs above station. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1093: 1927. WSP 1287: Drainage area. WSP 1397: 1921, 1927-31, 1937, drainage area (former site). WSP 1517: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	83	127	91	600	162	637	884	465	114	23	22
2	31	82	110	85	549	160	640	936	412	98	23	26
3	32	81	97	80	382	173	696	1,040	355	90	23	28
4	29	81	116	80	365	193	738	1,260	307	86	22	24
5	28	90	127	80	305	168	788	1,360	271	81	15	21
6	28	106	195	85	245	150	920	1,220	243	71	9.5	16
7	37	102	350	101	229	166	1,180	1,100	200	64	14	11
8	39	100	320	109	241	162	1,380	1,000	189	62	13	9.0
9	42	110	238	234	245	162	1,320	1,050	193	58	13	9.5
10	48	150	141	435	271	160	1,480	940	229	50	13	11
11	55	200	124	310	519	172	1,400	848	255	57	19	12
12	53	250	97	224	534	279	1,150	794	231	59	40	16
13	52	300	82	165	555	227	1,010	756	209	55	20	19
14	52	350	78	137	552	203	992	732	191	54	9.0	26
15	52	300	100	134	510	184	1,140	662	176	51	13	23
16	52	200	127	207	442	180	1,230	682	164	47	13	25
17	53	180	127	1,180	415	154	1,220	679	158	39	12	22
18	58	150	123	3,390	375	170	1,080	564	160	36	12	22
19	62	140	135	1,850	352	158	976	492	189	43	12	26
20	66	130	84	1,310	305	168	1,020	440	178	44	12	29
21	65	125	75	728	299	221	1,060	408	160	43	10	24
22	73	120	75	510	305	534	1,020	342	152	46	10	21
23	84	120	70	489	297	1,090	996	309	130	44	10	20
24	92	140	70	471	295	968	968	287	137	38	14	21
25	89	300	75	435	275	788	868	277	143	38	13	21
26	83	500	80	400	223	1,940	860	301	199	36	12	23
27	76	350	91	412	201	1,420	872	325	199	32	11	30
28	66	200	93	392	187	864	868	355	191	31	13	34
29	73	150	97	375	------	784	856	428	154	28	12	44
30	77	138	98	410	------	836	868	564	130	26	16	57
31	83	------	97	516	------	770	------	489	------	28	18	------
TOTAL	1,759	5,328	3,819	15,425	10,073	13,766	30,233	21,524	6,370	1,649	469.5	692.5
MEAN	56.7	178	123	498	360	444	1,008	694	212	53.2	15.1	23.1
MAX	92	500	350	3,390	600	1,940	1,480	1,360	465	114	40	57
MIN	28	81	70	80	187	150	637	277	130	26	9.0	9.0
AC-FT	3,490	10,570	7,570	30,600	19,980	27,300	59,970	42,690	12,630	3,270	931	1,370

CAL YR 1970 TOTAL 97,128.5 MEAN 266 MAX 4,020 MIN 3.3 AC-FT 192,700
WTR YR 1971 TOTAL 111,108.0 MEAN 304 MAX 3,390 MIN 9.0 AC-FT 220,400

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	0500	11.33	4,600	4-10	1800	7.96	1,630
3-26	1500	9.39	2,470	5- 5	0100	7.48	1,390

13214500 Warmsprings Reservoir near Riverside, Oreg.

LOCATION (revised).--Lat 43°35'05", long 118°12'30", in SW¼ sec.8, T.23 S., R.37 E., Malheur County, on Bureau of Reclamation lands, near right end of dam on Malheur River, 3 miles northwest of Riverside, 4 miles upstream from South Fork, and at mile 108.

DRAINAGE AREA.--1,100 sq mi, approximately.

PERIOD OF RECORD.--January 1920 to October 1929, December 1929 to current year.

GAGE.--Water-stage recorder. Prior to May 29, 1964, nonrecording gage read daily or weekly. Datum of gage is 3,327.0 ft above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level.

EXTREMES.--Current year: Maximum contents, 190,500 acre-ft June 5 (elevation, 3,405.88 ft); minimum, 99,510 acre-ft Sept. 30 (elevation, 3,382.76 ft).

Period of record: Maximum contents, 196,100 acre-ft Apr. 16, May 13, 1958 (elevation, 3,407.10 ft); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935, Sept. 18 to Oct. 11, 1950.

REMARKS.--Records good. Reservoir is formed by concrete-arch dam. Storage began in 1919. Capacity, 191,000 acre-ft between elevations 3,327.0 (bottom of outlet tunnel) and 3,406.0 (top of flashboards). Dead storage, 1,400 acre-ft below elevation 3,327.0 ft, not included in records. Water used to irrigate lands on both sides of river between Namorf and Ontario.

There are several other reservoirs in the Malheur River basin, all with less than 3,500 acre-ft capacity except Malheur Reservoir which has a capacity of 49,000 acre-ft, now limited to 14,000 acre-ft.

COOPERATION.--Data for computing capacity table furnished by Burea of Reclamation.

MONTHEND ELEVATIONS AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,386.04	110,500	-
Oct. 31	3,385.72	109,400	-1,100
Nov. 30	3,387.92	117,000	+7,600
Dec. 31	3,390.40	125,900	+8,900
CAL YR 1970	-	-	+54,500
Jan. 31	3,393.17	136,300	+10,400
Feb. 28	3,393.31	136,800	+500
Mar. 31	3,399.93	164,100	+27,300
Apr. 30	3,403.57	180,100	+16,000
May 31	3,405.60	189,200	+9,100
June 30	3,404.07	182,300	-6,900
July 31	3,397.92	155,500	-26,800
Aug. 31	3,389.05	121,000	-34,500
Sept.30	3,382.76	99,510	-21,490
WTR YR 1971	-	-	-10,990

13215000 Malheur River below Warmsprings Reservoir, near Riverside, Oreg.

LOCATION (revised).--Lat 43°34'15", long 118°12'05", in SW¼ sec.17, T.23 S., R.37 E., Malheur County, on left bank 1.0 mile downstream from Warmsprings Dam, 3.0 miles upstream from South Fork, 4.0 miles northwest of Riverside, and at mile 107.

DRAINAGE AREA.--1,100 sq mi, approximately.

PERIOD OF RECORD.--January 1906 to March 1907 and December 1908 (gage heights only), January 1909 to September 1910, December 1914 to July 1917, March 1919 to current year. Monthly discharge only for some periods, published in WSP 1317. Figures of discharge for January 1906 to March 1907, published in WSP 272 and 370, have been found to be unreliable and should not be used. Published as Middle Fork of Malheur River at Riverside 1906-7, as Middle Fork of Malheur River above South Fork, at Riverside 1909-10, as Malheur River above South Fork, at Riverside in WSP 370, 1906-10, and as Malheur River at Warm Springs reservoir site, near Riverside 1914-17.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,305 ft (by barometer). See WSP 1317 or 1737 for history of changes prior to Sept. 29, 1949.

AVERAGE DISCHARGE.--52 years (1919-71), 172 cfs (124,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,890 cfs Jan. 20, 21 (gage height, 7.64 ft); minimum daily, 0.10 cfs many days October to January and March.

Period of record: Maximum discharge observed, 7,200 cfs Mar. 1, 1910 (gage height, 10.7 ft, site and datum then in use), from rating curve extended above 820 cfs; no flow at times.

REMARKS.--Records good except those below 1.0 cfs, which are fair. Flow completely regulated since November 1919 by Warmsprings Reservoir (see station 13214500). Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 833: 1936. WSP 1063: 1942-45. WSP 1397: 1909-10, 1917. WSP 1447: 1955. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	.10	.10	.1	415	.10	.1	667	280	384	478	460
2	166	.10	.10	.1	352	.10	.1	559	280	384	496	460
3	166	.10	.10	.1	157	.10	.1	532	280	384	518	460
4	166	.10	.10	.1	.10	.10	277	626	280	384	532	460
5	166	.10	.10	.1	173	.10	554	798	284	384	528	456
6	166	.10	.10	.1	415	.10	690	1,100	284	388	528	428
7	166	.10	.10	.1	415	.10	940	1,200	284	433	528	410
8	166	.10	.10	.1	415	.10	1,260	1,090	284	451	528	397
9	166	.10	.10	.1	263	.10	1,380	852	284	451	528	392
10	166	.10	.10	.1	227	.10	1,500	788	289	446	541	374
11	166	.10	.10	.1	428	.10	1,560	634	289	446	546	366
12	58	.10	.10	.1	402	.10	1,090	518	289	446	541	366
13	.20	.10	.10	.1	464	.10	775	496	289	442	541	366
14	.20	.10	.10	.1	554	.10	775	496	289	442	541	366
15	.20	.10	.10	.1	590	.10	550	510	289	451	541	366
16	.20	.10	.10	.1	590	.10	570	541	352	456	541	374
17	.20	.10	.10	.1	590	.10	986	546	379	456	546	374
18	.20	.10	.10	131	590	.10	1,190	554	379	451	546	366
19	.20	.10	.10	580	541	.10	911	532	379	456	550	366
20	.20	.10	.10	1,500	460	.10	784	408	379	456	550	370
21	.20	.10	.10	1,890	272	.10	1,050	374	388	456	550	356
22	.20	.10	.10	1,870	138	.10	1,070	366	397	456	523	343
23	.20	.10	.10	1,860	186	.10	895	366	420	460	505	343
24	.20	.10	.10	1,840	289	.10	780	366	433	460	496	330
25	.20	.10	.10	1,840	388	.10	716	366	451	460	492	320
26	.20	.10	.10	1,240	420	190	667	397	442	456	469	320
27	.20	.10	.10	591	235	1,070	667	410	428	464	460	316
28	.20	.10	.10	163	.10	463	667	384	428	469	460	289
29	.20	.10	.10	85	------	.10	667	392	397	469	460	253
30	.20	.10	.10	150	------	.10	667	325	384	474	460	204
31	.20	------	.10	284	------	.10	------	289	------	478	460	------
TOTAL	1,891.80	3.00	3.10	14,025.7	9,969.20	1,725.80	23,638.3	17,482	10,310	13,693	15,983	11,051
MEAN	61.0	.10	.10	452	356	55.7	788	564	344	442	516	368
MAX	170	.10	.10	1,890	590	1,070	1,560	1,200	451	478	550	460
MIN	.20	.10	.10	.10	.10	.10	.10	289	280	384	460	204
AC-FT	3,750	6.0	6.2	27,820	19,770	3,420	46,890	34,680	20,450	27,160	31,700	21,920

CAL YR 1970	TOTAL 74,155.90	MEAN 203	MAX 640	MIN .10	AC-FT 147,100
WTR YR 1971	TOTAL 119,775.90	MEAN 328	MAX 1,890	MIN .10	AC-FT 237,600

NOTE.--No gage-height record Oct. 13 to Jan. 17.

13216500 North Fork Malheur River above Beulah Reservoir, near Beulah, Oreg.

LOCATION.--Lat 43°57'01", long 118°10'28", in NW¼NE¼ sec.4, T.19 S., R.37 E., on left bank 500 ft upstream from Beulah reservoir, 2.5 miles upstream from Warm Springs Creek, 3.5 miles northwest of Beulah, and at mile 18.0.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--January to September 1914 (published as "at Scott's Ranch, near Beulah"), June 1936 to current year. Published as "above Agency Valley Reservoir, near Beulah", June 1936 to September 1968.

GAGE.--Water-stage recorder. Datum of gage is 3,351 ft above mean sea level. Jan. 1 to Sept. 30, 1914, nonrecording gage and June 10, 1936, to Oct. 14, 1958, water-stage recorder at site 0.5 mile upstream at different datums.

AVERAGE DISCHARGE.--35 years (1936-71), 128 cfs (92,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,350 cfs Mar. 25 (gage height, 4.17 ft); minimum, 22 cfs Jan. 2.
Period of record: Maximum discharge, 3,970 cfs Dec. 23, 1964 (gage height, 8.30 ft, from floodmark), from rating curve extended above 1,300 cfs on basis of slope-area measurement of peak flow; maximum gage height, 9.4 ft sometime during period Dec. 17-23, 1964 (ice jam); minimum discharge, 8.5 cfs Dec. 13, 1967 (result of freezeup).

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1934: 1960(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	62	66	60	213	112	380	630	468	152	64	54
2	50	60	87	51	207	101	412	710	412	148	68	55
3	50	58	64	47	175	150	448	835	372	140	64	58
4	50	60	68	45	186	138	488	1,070	336	138	66	56
5	49	65	70	45	155	118	572	1,020	308	132	64	54
6	51	80	97	50	118	95	700	925	291	125	64	54
7	53	70	139	100	138	130	950	840	284	122	66	54
8	53	68	126	150	150	110	830	840	284	120	66	54
9	56	74	128	200	148	115	875	820	280	118	66	50
10	64	76	54	300	210	118	930	775	291	122	64	52
11	56	74	50	250	225	140	750	740	284	120	61	49
12	53	80	49	216	237	158	643	735	264	115	61	49
13	52	65	50	219	255	135	594	760	261	108	60	49
14	52	54	50	228	252	110	616	725	255	101	58	48
15	52	65	50	213	231	132	725	666	243	97	56	48
16	52	65	48	306	210	99	715	680	231	94	55	49
17	52	67	45	501	204	110	690	589	225	99	54	50
18	56	67	44	404	195	99	598	536	225	94	54	52
19	62	62	46	344	186	176	568	484	228	90	52	54
20	59	62	50	302	170	122	607	448	216	86	49	52
21	62	58	55	222	152	172	598	420	207	86	50	54
22	64	40	60	201	175	204	584	380	198	84	54	58
23	72	65	55	201	160	342	589	368	198	78	58	58
24	72	131	55	189	162	348	552	368	195	76	55	58
25	64	165	55	178	155	415	512	400	198	74	54	60
26	60	99	60	186	138	752	512	436	210	74	52	66
27	44	103	70	178	150	468	536	468	201	72	54	66
28	49	118	70	170	135	388	536	488	192	70	55	68
29	58	76	80	162	------	420	552	584	175	68	52	78
30	59	95	80	178	------	476	580	560	162	64	52	76
31	70	------	70	210	------	404	------	508	------	68	52	------
TOTAL	1,746	2,274	2,086	6,106	5,092	6,857	18,642	19,808	7,694	3,135	1,800	1,683
MEAN	56.3	75.8	67.3	197	182	221	621	639	256	101	58.1	56.1
MAX	72	165	139	501	255	752	950	1,070	468	152	68	78
MIN	44	40	44	45	118	95	380	368	162	64	49	48
AC-FT	3,460	4,510	4,140	12,110	10,100	13,600	36,980	39,290	15,260	6,220	3,570	3,340

CAL YR 1970 TOTAL 62,727 MEAN 172 MAX 922 MIN 35 AC-FT 124,400
WTR YR 1971 TOTAL 76,923 MEAN 211 MAX 1,070 MIN 40 AC-FT 152,600

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-10	0900	2.59	521	4-10	0100	3.82	1,140
1-17	1740	3.25	800	4-15	0100	3.12	780
3-23	2200	2.59	516	5- 4	0600	3.81	1,140
3-25	2300	4.17	1,350	5-29	0600	2.80	625
4- 7	0300	3.80	1,130				

13217000 Beulah Reservoir at Beulah, Oreg.

LOCATION.--Lat 43°54'41", long 118°09'25", in SW¼SE¼ sec.15, T.19 S., R.37 E., Malheur County, in control house at dam on North Fork Malheur River, 0.2 mile northwest of Beulah, and at mile 14.8.

DRAINAGE AREA.--440 sq mi, approximately.

PERIOD OF RECORD.--December 1935 to current year. Prior to October 1968, published as Agency Valley Reservoir at Beulah.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 60,110 acre-ft May 3-6, 31, June 1 (elevation, 3,340.10 ft); minimum observed, 9,070 acre-ft Oct. 12 (elevation, 3,300.15 ft).

Period of record: Maximum contents observed, 62,770 acre-ft May 3, 1941 (elevation, 3,341.50 ft); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955, Aug. 13 to Oct. 1, 1961, Sept. 21 to Oct. 5, 1968.

REMARKS.--Records good. Reservoir is formed by earth-fill, rock-faced dam. Storage began December 1935. Capacity, 59,920 acre-ft between elevations 3,263.21 (bottom of outlet tunnel) and 3,340.0 ft (top of spillway gates); with gates open the capacity is 32,220 acre-ft. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation. There are several other reservoirs in the Malheur River basin, all with less than 3,500 acre-ft capacity except Malheur Reservoir, which has a capacity of 49,000 acre-ft, now limited to 14,000 acre-ft.

COOPERATION.--Daily elevations furnished by Vale-Oregon Irrigation District, and capacity table furnished by Bureau of Reclamation.

REVISIONS.--WSP 1397: Drainage area.

MONTHEND ELEVATIONS AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,302.05	10,340	-
Oct. 31	3,303.50	11,370	+1,030
Nov. 30	3,308.80	15,780	+4,410
Dec. 31	3,313.90	21,000	+5,220
CAL YR 1970	-	-	+7,540
Jan. 31	3,324.15	33,820	+12,820
Feb. 28	3,331.70	45,250	+11,430
Mar. 31	3,338.78	57,630	+12,380
Apr. 30	3,340.00	59,920	+2,290
May 31	3,340.10	60,110	+190
June 30	-	[a]52,800	-7,310
July 31	-	[a]33,600	-19,200
Aug. 31	-	[a]20,400	-13,200
Sept.30	-	[a]15,200	-5,200
WTR YR 1971	-	-	+4,860

[a] No gage-height record.

13217500 North Fork Malheur River at Beulah, Oreg.

LOCATION.--Lat 43°54'28", long 118°09'08", in NW¼NE¼ sec.22, T.19 S., R.37 E., Malheur County, on left bank at Beulah, 0.3 mile downstream from Agency Valley Dam, 12 miles northwest of Juntura, and at mile 14.5.

DRAINAGE AREA.--440 sq mi, approximately.

PERIOD OF RECORD.--June 1926 to current year. Published as "near Beulah" June 1926 to September 1935.

GAGE.--Water-stage recorder. Datum of gage is 3,261.20 ft above mean sea level. Prior to Apr. 25, 1936, water-stage recorder at site 1 mile downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, nonrecording gage at site 20 ft downstream at datum 1.0 ft higher. Oct. 1, 1949, to June 30, 1964, at present site at datum 1.0 ft higher.

AVERAGE DISCHARGE.--36 years (1935-71), 138 cfs (99,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs May 4, 5; maximum gage height, 4.99 ft May 4; minimum daily discharge, 0.10 cfs Jan. 21, Feb. 2, 3.

Period of record: Maximum discharge, 7,000 cfs May 7, 1942 (gage height, 8.4 ft, from floodmark), caused by failure of gates at Agency Valley Dam, from rating curve extended above 1,100 cfs on basis of computation of peak flow over dam; no flow at times.

REMARKS.--Records good except those November to February, which are poor. Flow regulated since 1935 by Beulah Reservoir (see station 13217000). Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1397: 1927-32, 1934, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	.60	.30	.40	.20	1.6	525	592	662	341	371	225
2	127	.50	.40	.40	.10	1.6	479	651	584	338	356	225
3	127	.40	.30	.40	.10	1.6	479	979	479	368	332	195
4	125	.60	.20	.40	.20	1.8	491	1,160	425	380	326	175
5	125	.60	.30	.40	.40	1.6	497	1,220	425	380	323	151
6	117	.60	.40	.40	.40	1.6	676	1,200	422	407	320	137
7	115	.50	.40	.40	.50	1.1	882	1,060	407	419	320	137
8	115	.50	.40	.20	.50	1.0	940	901	404	404	317	137
9	105	.50	.40	1.0	.80	1.1	950	868	383	395	317	135
10	94	.40	.40	.80	1.0	1.1	1,000	876	344	392	314	135
11	91	.40	.40	.30	1.4	1.4	1,020	896	314	389	314	125
12	33	.40	.40	.20	1.1	1.4	892	812	311	386	314	119
13	.40	.40	.40	.20	1.4	1.2	712	720	317	383	311	119
14	.30	.40	.40	.20	1.4	1.4	658	712	317	389	311	119
15	.30	.40	.40	.40	1.4	1.4	668	736	317	404	308	117
16	.30	.40	.40	1.0	1.1	1.4	704	768	317	416	308	117
17	.20	.40	.40	1.1	1.1	1.2	740	756	338	416	296	117
18	.30	.40	.40	.80	1.0	1.2	772	628	356	413	288	117
19	.30	.40	.40	1.1	1.0	1.0	669	457	365	407	285	117
20	.40	.40	.40	.20	.80	1.0	598	431	386	389	282	117
21	.40	.30	.40	.10	1.1	1.1	637	446	395	398	282	117
22	.50	.30	.40	.20	1.1	1.1	676	443	407	404	280	117
23	.40	.50	.40	.20	1.1	1.4	700	437	416	398	278	109
24	.50	.50	.40	.20	1.2	1.6	724	437	413	389	278	127
25	.50	.50	.40	.20	1.4	1.6	590	437	410	398	278	111
26	.80	.40	.40	.20	1.4	59	554	461	410	407	278	94
27	.80	.40	.40	.20	1.6	357	592	476	407	407	275	82
28	.80	.30	.40	.20	1.6	392	592	476	377	395	275	78
29	.60	.30	.40	.20	------	391	606	494	362	386	268	78
30	.60	.40	.40	.20	------	514	598	539	347	383	262	78
31	.60	------	.40	.20	------	620	------	606	------	386	240	------
TOTAL	1,310.00	13.10	11.90	12.40	26.40	2,366.5	20,621	21,675	11,817	12,167	9,307	3,827
MEAN	42.3	.44	.38	.40	.94	76.3	687	699	394	392	300	128
MAX	127	.60	.40	1.1	1.6	620	1,020	1,220	662	419	371	225
MIN	.20	.30	.20	.10	.10	1.0	479	431	311	338	240	78
AC-FT	2,600	26	24	25	52	4,690	40,900	42,990	23,440	24,130	18,460	7,590

CAL YR 1970 TOTAL 67,930.30 MEAN 186 MAX 812 MIN 0 AC-FT 134,700
WTR YR 1971 TOTAL 83,154.30 MEAN 228 MAX 1,220 MIN .10 AC-FT 164,900

13220000 Malheur River at Little Valley, near Hope, Oreg.

LOCATION.--Lat 43°53'58", long 117°30'25", in SE¼SE¼ sec.24, T.19 S., R.42 E., Malheur County, on right bank 500 ft downstream from highway bridge at Little Valley, 8 miles southwest of Hope, 14 miles southwest of Vale, and at mile 34.0.

DRAINAGE AREA.--3,010 sq mi, approximately.

PERIOD OF RECORD.--April 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,424.03 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 197 cfs (142,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,620 cfs Jan. 18 (gage height, 10.15 ft); minimum, 34 cfs Oct. 16.
Period of record: Maximum discharge, 12,300 cfs Feb. 24, 1957 (gage height, 11.5 ft, from floodmark), from rating curve extended above 5,500 cfs on basis of slope-area measurement of peak flow; minimum, 7.8 cfs Feb. 15, 1966.
The two greatest floods occurred in March 1894 and March 1910, on basis of records for former station near Namorf.

REMARKS.--Records good. Flow regulated by Warmsprings and Beulah Reservoirs (see stations 13214500 and 13217000). Vale-Oregon Canal diverted 175,000 acre-ft above station at Namorf in sec.31, T.20 S., R.41 E., for supplying Bully Creek Reservoir and for irrigation. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1217: 1949(M), 1950(M). WSP 1397: 1950. WSP 1737: 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	55	66	72	489	165	807	716	290	195	225	168
2	66	53	68	65	608	104	710	680	346	195	216	160
3	62	53	66	60	525	100	644	584	330	192	210	165
4	60	49	64	50	400	98	632	788	258	195	210	162
5	60	55	62	50	201	87	835	1,030	216	198	216	152
6	62	55	72	50	231	87	1,100	1,240	210	185	204	150
7	62	57	84	52	490	90	1,400	1,490	213	182	207	139
8	64	57	145	55	490	84	1,800	1,480	190	210	207	131
9	64	60	160	82	490	82	2,140	1,240	195	222	198	121
10	60	60	171	150	420	86	2,230	996	190	219	195	97
11	59	62	155	330	261	86	2,410	980	182	216	201	100
12	55	66	125	246	490	87	2,470	835	168	213	207	95
13	53	64	105	132	475	97	1,810	774	155	213	207	90
14	47	59	88	118	540	97	1,530	566	145	207	201	88
15	37	59	90	146	656	105	1,480	545	148	201	201	90
16	36	57	92	622	686	109	1,200	578	145	219	198	90
17	46	57	86	2,330	686	111	1,330	638	155	231	198	88
18	51	55	65	6,580	680	104	1,760	1,240	188	234	198	92
19	53	53	65	4,360	680	100	1,890	1,090	207	243	190	92
20	59	51	68	2,630	614	86	1,340	891	204	243	195	92
21	57	49	70	2,650	520	84	1,260	758	201	225	195	92
22	57	48	68	2,320	384	141	1,540	622	195	216	195	88
23	62	53	64	2,190	246	286	1,400	632	201	231	185	86
24	68	62	65	2,130	252	578	1,180	490	201	228	180	84
25	68	72	66	2,060	330	734	1,120	424	201	222	182	86
26	66	68	68	2,030	420	752	877	342	255	222	182	84
27	66	82	66	1,240	451	1,580	842	314	269	225	180	82
28	62	84	68	746	362	1,910	849	272	266	231	172	82
29	59	74	66	481	------	1,350	807	258	246	231	178	86
30	57	70	68	290	------	704	770	266	216	222	178	87
31	55	------	70	379	------	746	------	262	------	225	178	------
TOTAL	1,801	1,799	2,636	34,696	13,077	10,830	40,163	23,021	6,386	6,691	6,089	3,219
MEAN	58.1	60.0	85.0	1,119	467	349	1,339	743	213	216	196	107
MAX	68	84	171	6,580	686	1,910	2,470	1,490	346	243	225	168
MIN	36	48	62	50	201	82	632	258	145	182	172	82
AC-FT	3,570	3,570	5,230	68,820	25,940	21,480	79,660	45,660	12,670	13,270	12,080	6,380

CAL YR 1970 TOTAL 82,954 MEAN 227 MAX 3,430 MIN 36 AC-FT 164,500
WTR YR 1971 TOTAL 150,408 MEAN 412 MAX 6,580 MIN 36 AC-FT 298,300

13226500 Bully Creek at Warmsprings, near Vale, Oreg.

LOCATION.--Lat 44°01'10", long 117°27'35", in SE¼NW¼ sec.9, T.18 S., R.43 E., Malheur County, on left bank 400 ft downstream from Cottonwood Creek, 2.7 miles upstream from Bully Creek Dam, 11.4 miles northwest of Vale, and at mile 14.7.

DRAINAGE AREA.--539 sq mi.

PERIOD OF RECORD.--September 1903 to February 1904, February 1905 to March 1907, February 1910, January 1911 to May 1917, March 1922 to June 1923, October 1963 to current year. Monthly discharges only for some periods, published in WSP 1317. Published as "near Vale" 1903, 1907, and as "above Vale" 1904-6, 1910.

GAGE.--Water-stage recorder. Datum of gage is 2,527.21 ft above mean sea level (Bureau of Reclamation bench mark). Prior to July 1, 1923, nonrecording gages within 0.5 mile downstream at different datums.

AVERAGE DISCHARGE.--14 years (1905-6, 1911-16, 1963-71), 45.6 cfs (33,040 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,070 cfs Jan. 17 (gage height, 5.91 ft); minimum, 0.80 cfs July 15.
Period of record: Maximum discharge, 12,800 cfs Dec. 22, 1964 (gage height, 8.68 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; no flow at times.

REMARKS.--Records fair. Many diversions for irrigation above station. Bully Creek Reservoir feed canal diverts from Malheur River by way of Vale-Oregon canal to Bully Creek Reservoir (see station 13226800).

REVISIONS (WATER YEARS).--WSP 1317: Drainage area (former site). WSP 1397: 1904-06, 1911, 1914, 1915.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	5.0	12	9.0	150	79	274	77	6.5	9.0	1.5	4.5
2	1.9	5.0	13	8.0	145	75	250	64	13	8.0	1.5	4.9
3	2.2	5.0	13	7.0	140	77	235	52	19	8.0	2.2	5.3
4	2.2	5.0	10	7.0	120	75	226	58	24	8.0	1.9	5.3
5	2.2	5.0	10	7.5	110	64	229	45	18	8.0	2.2	4.9
6	2.2	5.0	13	7.5	100	61	235	41	16	7.5	2.4	4.5
7	2.4	5.0	18	8.0	105	66	262	40	14	7.5	2.7	4.5
8	2.4	5.0	100	9.0	110	61	253	38	12	7.5	2.7	4.5
9	2.4	5.0	101	11	120	62	244	43	11	5.7	2.7	4.2
10	2.4	4.9	60	108	150	62	247	37	13	3.0	2.7	3.9
11	2.4	5.3	42	103	155	64	229	35	15	2.2	2.7	3.6
12	2.4	6.1	29	58	160	79	205	36	11	1.7	2.2	3.3
13	2.2	4.9	25	36	170	79	184	31	10	1.1	2.2	3.0
14	2.4	5.0	25	30	170	67	175	29	11	1.1	2.4	2.7
15	2.4	5.0	23	83	150	66	152	26	9.6	.80	1.9	2.7
16	2.4	5.0	20	568	145	61	150	18	8.5	1.1	2.4	2.7
17	2.4	5.0	18	1,730	140	60	155	18	8.5	2.7	2.4	2.7
18	2.4	5.0	16	972	130	62	140	16	9.6	3.3	2.2	2.7
19	3.0	5.0	15	621	120	56	125	17	11	3.6	1.9	3.0
20	3.3	5.3	15	600	110	60	112	15	10	3.9	2.2	2.7
21	3.3	5.3	19	300	100	61	115	16	9.6	3.9	1.9	2.7
22	3.3	4.2	20	235	105	95	108	16	9.0	5.3	1.7	2.7
23	4.9	8.5	20	199	110	364	103	14	9.6	6.5	2.4	2.4
24	5.3	10	18	163	103	380	103	11	10	6.1	3.0	2.4
25	5.0	11	15	138	95	308	97	8.0	9.6	6.5	3.6	2.4
26	5.0	11	17	135	81	916	90	4.5	11	6.1	3.6	2.4
27	5.0	13	19	178	90	628	88	4.2	13	3.9	3.6	3.0
28	5.0	12	19	172	81	428	86	3.6	14	2.7	3.6	3.0
29	5.0	13	20	160	------	365	79	3.6	11	2.2	3.9	3.6
30	5.0	13	18	155	------	360	75	4.9	10	1.7	4.2	3.6
31	5.0	------	15	150	------	320	------	9.0	------	1.3	3.9	------
TOTAL	99.3	202.5	778	6,968.0	3,465	5,561	5,026	830.8	357.5	139.90	80.4	103.8
MEAN	3.20	6.75	25.1	225	124	179	168	26.8	11.9	4.51	2.59	3.46
MAX	5.3	13	101	1,730	170	916	274	77	24	9.0	4.2	5.3
MIN	1.9	4.2	10	7.0	81	56	75	3.6	6.5	.80	1.5	2.4
AC-FT	197	402	1,540	13,820	6,870	11,030	9,970	1,650	709	277	159	206
(†)	231	0	0	50	0	0	91	386	792	378	298	500

CAL YR 1970 TOTAL 18,730.00 MEAN 51.3 MAX 1,520 MIN .60 AC-FT 37,150
WTR YR 1971 TOTAL 23,612.20 MEAN 64.7 MAX 1,730 MIN .80 AC-FT 46,830

† Bully Creek Reservoir feed canal, in acre-feet.

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-11	0500	2.25	160	-	-	[a]2.46	422
1-17	2100	5.91	5,070	3-26	0800	3.64	1,380

[a] Occurred between Jan. 30 and Feb. 23.

13226800 Bully Creek Reservoir near Vale, Oreg.

LOCATION.--Lat 44°00'50", long 117°23'45", in SE¼SW¼ sec.12, T.18 S., R.43 E., Malheur County, U.S. Bureau of Reclamation, in control chamber at dam on Bully Creek, 8.0 miles northwest of Vale, and at mile 12.0.

DRAINAGE AREA.--547 sq mi.

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 29,880 acre-ft May 1-3 (elevation 2,515.90 ft); minimum observed 6,460 acre-ft Sept. 30 (elevation, 2,482.70 ft).

Period of record: Maximum contents not determined, occurred during period Apr. 4 to May 2, 1969 (elevation, above 2,516.00 ft, spillway crest); minimum observed, 939 acre-ft Oct. 31, 1966 (elevation, 2,463.10 ft).

REMARKS.--Records fair. Reservoir is formed by earth-fill, rock-faced dam. Storage began Feb. 1, 1963. Capacity, 29,980 acre-ft between elevations 2,456.58 (outlet works) and 2,516.0 ft (spillway crest). Dead storage, 1,650 acre-ft below elevation 2,456.58 ft. Figures given herein do not include dead storage. Water used for irrigation on lands of Vale-Oregon Irrigation District.

There are several other reservoirs in the Malheur River basin, all with less than 3,500 acre-ft capacity except Malheur Reservoir, which has a capacity of 49,000 acre-ft, now limited to 14,000 acre-ft.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATIONS AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) †	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,494.60	12,650	-
Oct. 31	2,492.90	11,600	-1,050
Nov. 30	-	[a]12,100	+500
Dec. 31	2,496.55	13,910	+1,810
CAL YR 1970	-	-	+5,870
Jan. 31	2,506.00	20,950	+7,040
Feb. 28	2,508.00	22,630	+1,680
Mar. 31	2,514.95	28,950	+6,320
Apr. 30	2,515.80	29,780	+830
May 31	2,511.60	25,800	-3,980
June 30	2,508.00	22,630	-3,170
July 31	2,499.80	16,150	-6,480
Aug. 31	2,489.20	9,500	-6,650
Sept.30	2,487.70	6,460	-3,040
WTR YR 1971	-	-	-6,190

† Hour of gage reading not reported.

[a] No gage-height record.

SNAKE RIVER MAIN STEM

13269000 Snake River at Weiser, Idaho

LOCATION.--Lat 44°14'44", long 116°58'48", in NW¼SE¼ sec.31, T.11 N., R.5 W., Washington County, on right bank at upstream side of U.S. Highway 30N bridge at Weiser, 0.7 mile downstream from Weiser River, and at mile 351.3.

DRAINAGE AREA.--69,200 sq mi, approximately. Mean altitude, 5,400 ft.

PERIOD OF RECORD.--October 1910 to current year. Fragmentary gage-height record obtained by U.S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 2,086.64 ft above mean sea level. Prior to Oct. 1, 1914, nonrecording gage 0.2 mile downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, nonrecording gage, and Oct. 12, 1933, to Apr. 13, 1964, water-stage recorder, at site 0.3 mile upstream at same datum.

AVERAGE DISCHARGE.--61 years, 17,860 cfs (12,940,000 acre-ft per year); 15-year base period (1952-67), 16,720 cfs.

EXTREMES.--Current year: Maximum discharge, 64,000 cfs Jan. 20 (gage height, 11.59 ft); minimum, 10,400 cfs Aug. 5, 13 (gage height, 2.60 ft).

Period of record: Maximum discharge, 84,500 cfs Apr. 29, 1952 (gage height, 14.67 ft, site and datum then in use); minimum observed, 5,100 cfs Aug. 5, 1924 (gage height, 1.35 ft, site and datum then in use).

Flood of Mar. 3, 1910, reached a stage of 17.1 ft at site and datum 0.3 mile upstream, from reading on old U.S. Weather Bureau gage (discharge, 120,000 cfs). Flood in June 1894 was considerably higher.

REMARKS.--Records excellent. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 3,650,000 acres of which about 742,000 acres are by withdrawals from ground water. In addition, approximately 7,300 acres are irrigated below station by diversion from Weiser River (1966 determination). Records of water temperatures and chemical analyses for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1317: 1918. WSP 1567: 1910(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.6	10,000	8.0	39,000
3.0	11,700	10.0	52,400
4.0	16,400	12.0	67,200
6.0	26,900		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,400	17,700	19,800	20,000	35,100	25,500	49,700	56,100	40,000	44,300	10,900	12,300
2	15,300	17,100	19,000	19,600	35,700	24,000	52,700	53,900	39,500	43,400	10,900	12,800
3	15,500	17,300	19,300	19,300	35,700	24,000	54,600	55,300	39,100	41,100	10,700	13,700
4	15,300	15,500	19,700	19,400	35,300	25,100	54,900	55,600	36,500	39,900	10,500	13,300
5	15,200	14,700	19,000	19,800	35,300	24,100	54,000	55,900	41,200	37,300	10,500	13,300
6	14,100	14,900	19,700	18,400	32,700	25,200	52,300	56,500	40,900	34,900	10,700	14,100
7	14,900	15,100	22,900	17,900	31,700	26,200	53,900	56,100	41,600	27,800	10,800	14,000
8	14,900	15,400	29,100	18,000	31,400	25,100	56,300	57,800	42,100	25,500	10,800	14,100
9	14,800	16,100	27,200	19,000	31,600	24,800	58,700	59,300	43,500	23,000	10,800	14,100
10	14,900	17,400	27,200	20.500	31,800	24,000	58,600	60,600	42,300	20,600	10,500	14,300
11	14,900	17,700	23,500	22,000	34,300	26,000	59,700	59,800	40,900	20,800	10,600	13,900
12	15,300	17,300	22,500	20,300	34,400	28,700	60,100	59,200	38,900	18,900	10,500	14,200
13	16,000	17,800	19,800	21,600	33,800	33,600	58,400	60,000	36,800	16,600	10,400	13,700
14	17,100	16,200	19,400	22,800	35,000	30,700	57,900	61,500	36,000	16,100	10,600	13,500
15	17,900	15,900	20,200	23,200	35,200	29,600	58,100	59,800	35,700	13,000	10,900	13,500
16	16,300	17,800	21,000	30,500	36,200	29,300	57,800	58,800	35,800	12,800	11,000	13,600
17	17,300	17,900	20,300	38,800	36,800	27,800	57,200	57,900	35,300	13,500	10,800	13,400
18	17,100	17,900	18,800	51,300	36,700	28,400	56,900	56,000	36,700	12,100	10,600	14,200
19	16,800	17,800	19,600	58,000	36,600	29,700	54,400	53,500	39,400	12,100	10,600	14,000
20	17,600	17,200	18,900	62,300	36,700	30,500	56,300	50,600	38,200	12,100	10,900	14,100
21	17,700	17,000	19,000	62,500	36,200	31,600	58,500	50,200	36,000	11,700	10,800	13,800
22	17,800	17,000	20,000	59,400	35,200	31,400	58,200	46,900	35,400	11,700	11,100	14,300
23	17,700	17,100	18,700	52,200	34,700	33,800	57,200	47,500	37,500	11,400	12,000	14,800
24	17,900	17,300	16,800	45,700	34,200	40,700	55,300	47,900	39,600	11,500	11,500	15,100
25	18,800	23,600	18,900	42,700	33,900	46,200	53,400	48,600	38,200	11,300	11,300	14,800
26	17,500	24,000	18,800	40,700	30,900	58,300	53,200	46,400	41,200	11,200	11,400	15,000
27	17,300	21,100	18,100	38,900	27,300	61,100	52,800	42,600	45,300	11,000	11,600	15,100
28	17,400	19,500	19,700	36,900	26,300	57,400	56,600	42,700	48,600	11,200	11,400	15,200
29	17,100	20,200	20,300	35,600	------	55,400	57,900	45,800	46,700	11,100	11,600	16,000
30	16,800	19,400	20,100	36,400	------	52,800	56,300	44,700	46,500	11,000	11,800	16,400
31	17,800	------	20,000	35,700	------	51,400	------	43,000	------	10,800	12,000	------
TOTAL	510,400	530,900	637,300	1,029.4M	950,700	1,062.4M	1,681.9M	1,650.5M	1,195.4M	609,700	340,500	424,600
MEAN	16,460	17,700	20,560	33,210	33,950	34,270	56,060	53,240	39,850	19,670	10,980	14,150
MAX	18,800	24,000	29,100	62,500	36,800	61,100	60,100	61,500	48,600	44,300	12,000	16,400
MIN	14,100	14,700	16,800	17,900	26,300	24,000	49,700	42,600	35,300	10,800	10,400	12,300
AC-FT	1,012M	1,053M	1,264M	2,042M	1,886M	2,107M	3,336M	3,274M	2,371M	1,209M	675,400	842,200

CAL YR 1970 TOTAL 7,200,500 MEAN 19,730 MAX 43,600 MIN 10,200 AC-FT 14,280,000
WTR YR 1971 TOTAL 10,623,700 MEAN 29,110 MAX 62,500 MIN 10,400 AC-FT 21,070,000

13269300 North Fork Burnt River near Whitney, Oreg.

LOCATION.--Lat 44°36'00", long 118°15'10", in NE¼ sec.23, T.11 S., R.36 E., Baker County, Wallowa Whitman National Forest, on right bank 0.1 mile upstream from Petticoat Creek, 1.0 mile downstream from U.S. Bureau of Reclamation damsite, 4.5 miles southeast of Whitney, and 11.5 miles northwest of Unity.

DRAINAGE AREA.--110 sq mi, approximately.

PERIOD OF RECORD.--June 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 48.5 cfs (35,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,190 cfs Apr. 6 (gage height, 4.31 ft); minimum daily, 1.1 cfs Aug. 25.

Period of record: Maximum discharge, 1,190 cfs Apr. 6, 1971 (gage height, 4.31 ft); maximum gage height, 4.95 ft Jan. 29, 1965 (ice jam); minimum discharge, 0.17 cfs Nov. 21, 1967, but may have been less when stage fell below inlets July 19 to Aug. 17, 1966.

REMARKS.--Records good except those below 100 cfs during winter periods and for June through September, which are fair. Some regulation from irrigation and mining operations upstream. A transmountain diversion from headwaters of Middle Fork John Day River delivers as much as 12 cfs to North Fork Burnt River above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	4.9	12	10	84	43	179	334	85	18	5.6	1.8
2	1.6	4.8	14	9.0	94	41	217	402	86	14	5.9	2.8
3	1.6	4.4	12	9.6	86	39	266	478	79	14	8.1	2.5
4	1.6	4.7	12	8.4	90	37	326	510	68	14	5.3	2.0
5	1.6	5.7	12	8.6	80	35	416	420	56	14	4.3	1.8
6	1.7	7.0	15	11	68	33	578	357	54	12	4.0	1.7
7	1.7	7.0	17	12	70	32	780	348	50	15	4.3	1.7
8	3.0	7.4	18	16	68	31	523	388	47	21	4.6	1.6
9	3.7	9.0	17	24	70	30	492	357	43	22	4.3	1.6
10	4.1	8.2	18	25	109	29	483	314	45	27	3.6	1.8
11	4.0	10	14	22	190	29	375	290	43	24	3.0	1.6
12	3.5	14	13	20	228	27	310	294	35	22	3.0	1.6
13	3.0	9.5	14	19	173	28	298	290	35	18	3.3	1.5
14	2.8	6.8	12	18	135	31	339	235	29	18	3.0	1.4
15	2.7	8.8	11	21	128	27	420	217	23	17	2.8	1.4
16	2.6	8.6	13	25	113	29	366	232	21	16	2.6	1.4
17	2.6	7.3	11	45	101	30	330	178	18	16	2.1	1.3
18	3.6	8.0	9.6	90	91	28	270	151	21	15	2.1	1.4
19	5.1	8.2	10	78	83	30	250	138	34	14	1.9	1.5
20	5.0	8.2	11	70	77	29	302	123	41	14	1.7	1.7
21	5.3	6.3	10	52	68	29	326	102	39	12	1.5	1.7
22	6.1	4.3	11	58	69	32	286	95	38	11	1.4	1.9
23	7.4	5.5	10	66	61	78	294	96	33	10	1.5	1.8
24	8.7	18	11	70	62	164	246	95	32	9.7	1.3	1.7
25	6.8	57	10	66	55	164	220	133	38	8.9	1.1	1.7
26	6.2	33	11	68	53	298	246	127	40	8.5	1.2	1.7
27	4.6	23	10	58	55	258	274	116	40	8.1	1.3	1.2
28	3.7	21	9.4	62	44	189	270	121	37	8.1	1.3	1.4
29	4.3	17	10	60	------	198	290	134	23	8.1	1.4	2.4
30	4.7	16	11	94	------	228	302	95	18	6.2	1.4	2.4
31	5.0	------	11	100	------	187	------	80	------	8.1	1.4	------
TOTAL	119.9	353.6	380.0	1,295.6	2,605	2,463	10,274	7,250	1,251	443.7	90.3	52.0
MEAN	3.87	11.8	12.3	41.8	93.0	79.5	342	234	41.7	14.3	2.91	1.73
MAX	8.7	57	18	100	228	298	780	510	86	27	8.1	2.8
MIN	1.6	4.3	9.4	8.4	44	27	179	80	18	6.2	1.1	1.2
AC-FT	238	701	754	2,570	5,170	4,890	20,380	14,380	2,480	880	179	103

CAL YR 1970 TOTAL 21,622.37 MEAN 59.2 MAX 480 MIN .50 AC-FT 42,890
WTR YR 1971 TOTAL 26,578.10 MEAN 72.8 MAX 780 MIN 1.1 AC-FT 52,720

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4- 6	2200	4.31	1,190	5- 4	0130	2.92	564
4-14	2400	2.68	456				

13270800 South Fork Burnt River above Barney Creek, near Unity, Oreg.

LOCATION.--Lat 44°24'20", long 118°18'20", in S½ sec.28, T.13 S., R.36 E., Baker County, Wallowa Whitman National Forest, on right bank 300 ft upstream from Barney Creek and 6 miles southwest of Unity.

DRAINAGE AREA.--38.5 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,347.06 ft above mean sea level (levels by Bureau of Reclamation). Prior to July 18, 1963, nonrecording gage at site 6 ft upstream at datum 0.16 ft higher.

AVERAGE DISCHARGE.--8 years, 27.8 cfs (20,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 111 cfs May 4 (gage height, 1.69 ft); maximum gage height, 2.54 ft Jan. 3 (backwater from ice); minimum discharge, 16 cfs Nov. 21, 22.

Period of record: Maximum discharge, 186 cfs Apr. 29, 1965 (gage height, 1.98 ft); maximum gage height, 3.11 ft Dec. 18, 1964 (ice jam); minimum daily discharge, 12 cfs Jan. 23, 24, 1969.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	23	23	29	21	30	67	65	32	26	25
2	22	21	23	18	27	21	31	79	59	31	26	25
3	23	21	23	23	25	21	32	94	54	32	26	25
4	23	21	22	20	24	23	35	107	50	32	26	25
5	23	22	24	19	22	23	39	104	49	31	26	25
6	24	22	25	20	20	23	52	95	49	31	26	25
7	23	21	25	21	21	22	70	89	49	31	26	24
8	24	21	24	22	20	22	60	91	50	31	26	24
9	25	22	23	24	21	24	57	93	50	31	26	24
10	24	22	23	22	20	25	58	90	51	32	25	24
11	23	23	23	21	21	24	54	90	48	30	25	24
12	23	22	20	20	22	24	49	95	46	30	25	24
13	23	21	23	20	22	24	46	100	46	31	25	24
14	23	21	24	20	22	24	48	93	44	30	25	24
15	23	21	27	20	22	24	52	87	43	29	25	24
16	22	21	25	23	21	23	53	85	42	29	25	24
17	23	21	22	27	22	23	51	76	41	29	25	24
18	24	23	19	25	22	25	47	70	41	29	25	24
19	23	23	20	25	22	23	46	66	39	28	25	24
20	24	22	24	25	22	24	47	60	37	28	24	24
21	23	20	22	24	22	24	46	56	37	27	24	24
22	22	20	22	23	22	25	46	54	36	27	25	24
23	23	24	23	24	23	26	47	54	36	27	25	24
24	23	28	24	22	23	27	45	57	35	27	24	24
25	22	25	21	21	23	28	45	66	36	27	24	25
26	22	24	24	22	23	32	44	71	35	27	24	25
27	21	24	24	21	22	31	46	74	35	27	24	25
28	22	23	21	22	21	31	49	78	34	27	24	25
29	22	23	24	21	------	31	53	83	33	26	24	26
30	22	23	24	23	------	31	58	76	32	26	24	25
31	21	------	24	28	------	30	------	69	------	26	25	------
TOTAL	707	666	715	689	626	779	1,436	2,469	1,302	901	775	733
MEAN	22.8	22.2	23.1	22.2	22.4	25.1	47.9	79.6	43.4	29.1	25.0	24.4
MAX	25	28	27	28	29	32	70	107	65	32	26	26
MIN	21	20	19	18	20	21	30	54	32	26	24	24
AC-FT	1,400	1,320	1,420	1,370	1,240	1,550	2,850	4,900	2,580	1,790	1,540	1,450

CAL YR 1970 TOTAL 10,135 MEAN 27.8 MAX 100 MIN 16 AC-FT 20,100
WTR YR 1971 TOTAL 11,798 MEAN 32.3 MAX 107 MIN 18 AC-FT 23,400

NOTE.--No gage-height record Jan. 23 to Mar. 10.

13272500 Unity Reservoir near Unity, Oreg.

LOCATION.--Lat 44°30'20", long 118°11'00", in SW¼SE¼ sec.21, T.12 S., R.37 E., Baker County, at Unity Dam on Burnt River, 500 ft downstream from Job Creek, 0.5 mile downstream from confluence of North, Middle, and South Forks of Burnt River, 4.5 miles north of Unity, and at mile 63.6.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD.--March 1938 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation bench mark). Prior to Nov. 4, 1941, reference mark or mercury pressure gage at same site and datum.

EXTREMES.--Current year: Maximum contents observed, 26,770 acre-ft May 21 (elevation, 3,821.62 ft); minimum observed, 930 acre-ft Sept. 29, 30 (elevation, 3,781.50 ft).

Period of record: Maximum contents observed, 26,770 acre-ft May 21, 1971 (elevation, 3,821.62 ft); no contents Sept. 5 to Oct. 4, 1955.

REMARKS.--Records good. Reservoir is formed by earth-fill dam with concrete spillway and outlet works, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,220 acre-ft between elevations 3,776.5 ft (bottom of outlet gates) and 3,820.0 ft (top of radial gates on spillway when closed). Dead storage, 600 acre-ft below elevations 3,776.5 ft. Records given herein represent usable contents. Water used for irrigation in the Burnt River Irrigation District near Hereford and Bridgeport.

COOPERATION.--Data for computing capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) †	Contents (acre-feet)	Change in Contents (acre-feet)
Sept.30	3,781.80	1,000	-
Oct. 31	3,785.80	2,250	+1,250
Nov. 30	3,793.00	5,520	+3,270
Dec. 31	3,798.95	8,940	+3,420
CAL YR 1970	-	-	+980
Jan. 31	3,807.65	14,890	+5,950
Feb. 28	3,812.00	18,260	+3,370
Mar. 31	3,816.50	22,080	+3,820
Apr. 30	3,819.40	24,670	+2,590
May 31	3,819.40	24,670	0
June 30	3,815.40	21,110	-3,560
July 31	3,807.80	15,000	-6,110
Aug. 31	3,796.10	7,230	-7,770
Sept.30	3,784.25	1,700	-5,530
WTR YR 1971	-	-	+700

† Gage read daily between 1500 and 1830.

13273000 Burnt River near Hereford, Oreg.

LOCATION.--Lat 44°30'20", long 118°10'55", in SE¼ sec.21, T.12 S., R.37 E., Baker County, on left bank 800 ft downstream from Unity Dam, 0.4 mile upstream from Van Cleve ditch, 7 miles west of Hereford, and at mile 63.5.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD.--March to September 1915, April to September 1916, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 3,758.19 ft above mean sea level. Oct. 1, 1943, to Oct. 31, 1966, water-stage recorder at site 450 ft downstream at datum 1.44 ft lower. See WSP 1317 or 1737 for history of changes prior to Oct. 1, 1943.

AVERAGE DISCHARGE.--43 years (1928-71), 81.6 cfs (59,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Apr. 8 (gage height, 9.07 ft); minimum, 0.50 cfs Nov. 3.
Period of record: Maximum discharge, 2,220 cfs Apr. 17, 1943 (gage height, 8.79 ft, present datum), from rating curve extended above 1,300 cfs; maximum gage height, 9.29 ft, present datum, Apr. 16, 1943, just before concrete control washed out; no flow at times; minimum discharge before construction of Unity Dam, 1.6 cfs Aug. 31, 1935.

REMARKS.--Records good. Flow regulated since 1938 by Unity Reservoir (see sta 13272500). Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 903: 1939. WSP 1397: 1916, 1930, 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	.59	.72	1.1	24	115	80	321	181	127	149	142
2	19	.57	.77	1.1	26	114	76	318	182	126	144	141
3	19	.51	.82	1.1	27	114	142	431	181	125	141	139
4	18	.54	.82	1.1	28	113	176	488	180	125	139	137
5	19	.55	.82	1.1	56	113	219	534	180	124	144	135
6	15	.58	.82	1.1	117	113	286	534	180	123	149	133
7	5.0	.62	.82	1.1	116	112	470	518	180	122	144	131
8	3.8	.62	.83	1.1	117	112	1,250	456	176	121	139	129
9	.89	.59	.98	1.1	104	111	1,210	427	161	120	136	127
10	.90	.59	1.0	1.1	100	111	1,130	422	151	119	143	125
11	.87	.62	1.0	6.2	100	111	858	373	151	119	134	124
12	.97	.63	1.0	6.8	104	110	596	346	150	118	139	121
13	.94	.58	1.0	6.8	113	108	252	339	150	116	152	119
14	.96	.58	1.1	6.8	115	107	155	336	151	115	158	117
15	1.0	.58	1.1	7.1	117	85	164	334	150	114	156	115
16	1.0	.55	1.1	7.1	119	68	263	332	150	113	151	114
17	1.1	.58	1.1	8.8	120	68	375	329	149	112	151	112
18	1.1	.65	1.1	12	122	66	384	311	148	110	151	111
19	1.1	.64	1.1	12	122	66	382	270	148	109	149	109
20	1.0	.67	1.1	13	122	69	382	234	144	141	150	106
21	.80	.67	1.1	19	119	71	373	214	137	154	158	103
22	.86	.68	1.1	23	119	71	368	208	137	152	156	100
23	.91	.76	1.1	20	119	71	372	208	136	151	155	97
24	.94	.75	1.0	15	119	72	379	193	134	149	154	92
25	.88	.72	1.0	16	116	74	363	190	133	146	152	89
26	.89	.67	1.1	17	116	76	327	183	132	145	152	87
27	.83	.69	1.1	17	116	78	292	183	132	142	150	84
28	.77	.74	1.1	19	116	81	292	182	131	140	149	82
29	.76	.73	1.0	20	------	83	298	182	129	141	147	81
30	.67	.73	1.1	20	------	84	321	182	129	155	146	79
31	.68	------	1.1	21	------	83	------	182	------	153	144	------
TOTAL	138.62	18.98	30.90	304.6	2,809	2,830	12,235	9,760	4,573	4,027	4,582	3,381
MEAN	4.47	.63	1.00	9.83	100	91.3	408	315	152	130	148	113
MAX	19	.76	1.1	23	122	115	1,250	534	182	155	158	142
MIN	.67	.51	.72	1.1	24	66	76	182	129	109	134	79
AC-FT	275	38	61	604	5,570	5,610	24,270	19,360	9,070	7,990	9,090	6,710

CAL YR 1970 TOTAL 33,674.20 MEAN 92.3 MAX 615 MIN .51 AC-FT 66,790
WTR YR 1971 TOTAL 44,690.10 MEAN 122 MAX 1,250 MIN .51 AC-FT 88,640

BURNT RIVER BASIN

13274200 Burnt River near Bridgeport, Oreg.

LOCATION.--Lat 44°32'37", long 117°41'10", in NW¼NW¼ sec.10, T.12 S., R.41 E., Baker County, on left bank 0.5 mile downstream from Dark Canyon, 4.6 miles upstream from Deer Creek, 5.0 miles northeast of Bridgeport, and at mile 37.1.

DRAINAGE AREA.--650 sq mi, approximately.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,223.22 ft above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--15 years, 102 cfs (73,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs Apr. 9 (gage height, 6.40 ft); minimum, 9.0 cfs Dec. 12.
Period of record: Maximum discharge, 1,600 cfs Apr. 9, 1971 (gage height, 6.40 ft); minimum, 8.8 cfs Sept. 30, 1966.

REMARKS.--Records good. Flow regulated since 1938 by Unity Reservoir (see sta 13272500). Many diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	23	28	25	120	155	203	448	237	138	102	110
2	55	23	27	24	116	154	201	448	245	134	99	109
3	55	22	24	25	104	152	204	460	259	134	105	109
4	54	21	26	22	102	154	225	496	279	138	105	102
5	51	22	28	21	102	155	296	589	259	140	103	101
6	50	24	25	27	95	150	331	652	243	140	98	96
7	49	24	29	36	150	149	420	661	229	138	95	98
8	45	25	37	40	173	150	527	661	221	127	103	98
9	40	26	40	62	161	150	1,380	619	205	122	110	105
10	39	25	36	168	157	150	1,510	544	196	116	108	99
11	37	26	31	117	157	154	1,400	520	194	112	99	91
12	34	28	24	73	157	164	1,090	496	186	109	91	89
13	33	28	25	64	160	165	804	440	181	112	96	91
14	32	25	23	66	172	157	598	415	180	112	98	87
15	31	24	22	75	178	152	410	415	173	106	89	87
16	30	24	27	110	178	140	388	428	169	95	91	89
17	29	23	21	192	179	115	400	415	156	90	90	90
18	29	23	20	298	180	111	493	408	141	87	94	90
19	29	22	23	215	180	109	526	405	137	88	93	94
20	29	23	25	198	177	108	532	395	137	88	96	94
21	28	21	28	150	176	112	544	353	137	82	103	99
22	30	21	23	97	175	118	535	295	129	88	112	99
23	31	20	22	88	159	132	532	261	126	88	99	93
24	32	24	24	93	155	154	526	249	119	88	101	84
25	32	34	20	88	151	162	535	241	123	88	108	88
26	30	34	24	93	147	191	526	221	130	94	102	88
27	30	30	23	93	154	216	499	247	131	96	103	94
28	29	32	27	87	157	201	465	247	140	98	99	98
29	28	31	29	85	------	197	448	223	144	89	102	102
30	27	29	27	85	------	205	443	217	130	83	103	103
31	24	------	26	106	------	211	------	225	------	91	109	------
TOTAL	1,127	757	814	2,923	4,272	4,793	16,991	12,694	5,336	3,311	3,106	2,877
MEAN	36.4	25.2	26.3	94.3	153	155	566	409	178	107	100	95.9
MAX	55	34	40	298	180	216	1,510	661	279	140	112	110
MIN	24	20	20	21	95	108	201	217	119	82	89	84
AC-FT	2,240	1,500	1,610	5,800	8,470	9,510	33,700	25,180	10,580	6,570	6,160	5,710

CAL YR 1970 TOTAL 41,953 MEAN 115 MAX 590 MIN 19 AC-FT 83,210
WTR YR 1971 TOTAL 59,001 MEAN 162 MAX 1,510 MIN 20 AC-FT 117,000

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	1700	4.74	954	5- 8	1400	4.31	674
4- 9	1630	6.40	1,600				

13275000 Burnt River at Huntington, Oreg.

LOCATION.--Lat 44°21'30", long 117°16'20", in NE¼ sec.13, T.14 S., R.44 E., Baker County, on right bank 0.5 mile northwest of Huntington and at mile 2.9.

DRAINAGE AREA.--1,093 sq mi.

PERIOD OF RECORD.--September 1928 to September 1932, October 1956 to September 1959, June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,104.75 ft above mean sea level. Sept. 13, 1928, to Sept. 30, 1932, nonrecording gage at site 200 ft upstream at different datum. Oct. 1, 1956, to Sept. 30, 1959, water-stage recorder and Oct. 1, 1959, to Aug. 20, 1962, crest-stage gage.

AVERAGE DISCHARGE.--16 years, 122 cfs (88,390 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,750 cfs Apr. 10 (gage height, 6.25 ft); minimum, 28 cfs Jan. 2, but may have been less during period of ice effect.

Period of record: Maximum discharge, 2,220 cfs Dec. 22, 1964 (gage height, 5.94 ft); maximum gage height, 6.80 ft Feb. 3, 1963, (ice jam); no flow at times.

REMARKS.--Records good. Flow regulated since 1938 by Unity Reservoir (see sta 13272500). Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	51	60	59	268	193	361	529	255	171	90	87
2	82	49	67	53	274	198	349	525	271	171	93	90
3	81	49	57	54	240	227	349	536	281	167	93	101
4	81	48	57	45	222	229	349	578	334	167	100	101
5	78	50	56	43	209	219	403	693	307	167	98	96
6	78	55	66	54	176	211	442	767	294	162	97	106
7	77	53	69	58	185	216	500	822	284	151	94	101
8	73	54	77	60	258	214	595	830	289	140	90	98
9	66	59	97	67	255	219	950	818	281	129	91	91
10	64	57	72	67	253	222	1,710	700	266	127	98	100
11	60	59	58	134	253	227	1,710	634	266	124	101	91
12	59	64	45	87	255	242	1,600	606	248	115	96	87
13	54	59	46	72	263	245	1,190	543	237	108	90	87
14	54	57	50	70	276	227	934	475	229	113	100	90
15	54	55	54	120	284	222	595	457	214	109	94	87
16	56	53	55	242	284	211	494	460	214	106	91	83
17	55	52	45	390	281	183	497	448	198	101	80	87
18	54	52	39	522	281	167	564	439	193	94	83	89
19	56	50	42	567	284	165	658	430	188	94	84	91
20	56	51	45	543	268	165	672	412	178	93	82	100
21	58	50	47	370	263	165	710	382	171	87	89	98
22	58	44	44	261	268	176	690	328	156	84	93	101
23	61	48	42	232	261	242	672	276	147	87	97	101
24	62	54	44	222	248	263	651	261	144	87	80	94
25	58	62	37	211	242	287	655	248	151	83	89	94
26	60	63	45	211	222	451	641	227	183	76	94	98
27	55	63	43	227	229	385	623	284	169	83	91	103
28	54	62	54	222	222	376	585	266	193	87	93	106
29	54	62	58	209	------	355	543	253	190	87	87	120
30	53	61	52	203	------	364	532	222	183	82	91	126
31	52	------	56	222	------	373	------	229	------	80	86	------
TOTAL	1,946	1,646	1,674	5,892	7,024	7,639	21,224	14,678	6,714	3,532	2,835	2,904
MEAN	62.8	54.9	54.0	190	251	246	707	473	224	114	91.5	96.8
MAX	83	64	97	567	284	451	1,710	830	334	171	101	126
MIN	52	44	37	43	176	165	349	222	144	76	80	83
AC-FT	3,860	3,260	3,320	11,690	13,930	15,150	42,100	29,110	13,320	7,010	5,620	5,760

CAL YR 1970 TOTAL 54,008 MEAN 148 MAX 721 MIN 35 AC-FT 107,100
WTR YR 1971 TOTAL 77,708 MEAN 213 MAX 1,710 MIN 37 AC-FT 154,100

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	0900	4.16	914	5- 9	0200	4.02	858
4-10	1700	6.25	1,750				

13275300 Powder River near Sumpter, Oreg.

LOCATION.--Lat 44°40'20", long 117°59'40", in NE¼NE¼ sec.25, T.10 S., R.38 E., Baker County, Wallowa Whitman National Forest, on left bank 1,200 ft downstream from Mason Dam, 1.4 miles upstream from California Gulch, 10.9 miles southwest of Baker, and at mile 123.2.

DRAINAGE AREA.--168 sq mi, approximately. Prior to Oct. 1, 1970, 170 sq mi at cableway, 0.5 mile downstream.

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,898.47 ft above mean sea level (Bureau of Reclamation bench mark). Prior to July 29, 1965, nonrecording gage at datum 1.03 ft higher.

AVERAGE DISCHARGE.--6 years, 92.1 cfs (66,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 530 cfs May 25 (gage height, 3.72 ft); minimum, 2.5 cfs Jan. 31, Feb. 1-8, 10-13.
Period of record: Maximum discharge observed, 971 cfs Apr. 30, 1965 (gage height,4.43 ft); no flow Nov. 12, 1967.
Maximum discharge, 1,600 cfs (approximation) Mar. 20, 1910, based on comparison with records for station downstream, near Baker.

REMARKS.--Records good. Flow completely regulated since Oct. 31, 1967, by Phillips Lake (active capacity, 90,540 acre-ft). Many small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.5	2.8	3.0	2.5	209	204	252	452	330	157	213
2	8.6	3.5	2.8	3.0	2.5	206	205	300	453	330	138	197
3	8.6	3.3	3.0	3.0	2.5	206	205	340	454	327	187	194
4	8.6	3.3	3.0	3.0	2.5	206	206	393	454	328	205	163
5	8.6	3.3	3.0	3.0	2.5	206	206	408	454	328	246	157
6	8.2	3.3	3.0	3.0	2.5	206	207	409	455	328	256	158
7	8.0	3.2	3.2	3.0	2.5	206	207	409	450	257	256	160
8	8.2	3.3	3.2	3.0	2.6	206	207	436	449	217	263	160
9	8.1	3.3	3.2	3.1	2.6	206	208	447	449	219	293	161
10	7.9	3.3	3.2	3.1	2.6	206	208	447	448	219	292	181
11	7.9	3.3	3.2	3.1	2.6	139	230	448	448	217	294	227
12	8.3	3.3	3.3	3.1	2.6	100	283	449	447	218	328	224
13	8.3	3.3	3.3	3.1	2.6	100	317	449	447	219	332	201
14	8.3	3.2	3.3	3.2	6.0	101	347	451	448	179	325	142
15	8.0	3.3	3.3	3.2	16	101	354	451	443	170	306	146
16	7.9	3.4	3.0	3.2	48	101	392	450	443	201	293	146
17	7.9	3.2	3.0	3.2	74	101	408	450	442	202	276	147
18	8.0	3.2	3.0	3.2	74	80	410	452	442	202	221	148
19	7.9	3.2	3.0	3.1	74	61	412	452	440	203	215	147
20	7.9	3.3	3.0	3.1	31	61	414	452	440	200	231	147
21	8.3	3.2	3.0	3.1	8.6	62	414	453	440	201	259	123
22	8.3	3.2	3.0	3.1	10	63	415	453	440	201	252	112
23	8.6	3.1	3.0	3.1	91	63	415	453	439	234	252	84
24	8.6	2.9	3.1	3.1	181	63	414	455	434	264	253	73
25	8.6	2.9	3.1	3.0	209	64	413	487	433	264	224	73
26	8.6	3.0	3.1	3.0	209	64	411	453	432	254	194	56
27	8.6	3.2	3.1	3.0	209	103	410	449	431	227	214	43
28	5.9	3.0	3.1	3.0	209	126	319	449	362	220	220	31
29	3.5	2.9	3.1	3.0	------	180	250	451	328	188	221	23
30	3.5	3.0	3.1	3.0	------	204	251	451	329	190	222	17
31	3.5	------	3.1	2.8	------	204	------	451	------	191	223	------
TOTAL	246.2	96.4	95.6	94.9	1,482.7	4,204	9,342	13,350	13,026	7,328	7,648	4,054
MEAN	7.94	3.21	3.08	3.06	53.0	136	311	431	434	236	247	135
MAX	15	3.5	3.3	3.2	209	209	415	487	455	330	332	227
MIN	3.5	2.9	2.8	2.8	2.5	61	204	252	328	170	138	17
AC-FT	488	191	190	188	2,940	8,340	18,530	26,480	25,840	14,540	15,170	8,040

CAL YR 1970 TOTAL 32,304.7 MEAN 88.5 MAX 342 MIN 1.7 AC-FT 64,080
WTR YR 1971 TOTAL 60,967.8 MEAN 167 MAX 487 MIN 2.5 AC-FT 120,900

NOTE.--No gage-height record Dec. 26 to Jan. 26.

13286700 Powder River near Richland, Oreg.

LOCATION.--Lat 44°46'40", long 117°17'30", in SE¼ sec.14, T.9 S., R.44 E., Baker County, on left bank 0.4 mile upstream from Upper Timber Canyon, 6 miles west of Richland, and at mile 20.3.

DRAINAGE AREA.--1,310 sq mi, approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,277.42 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 236 cfs (171,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,130 cfs Jan. 20 (gage height, 6.39 ft); minimum, 16 cfs Aug. 29.
Period of record: Maximum discharge, 3,470 cfs Jan. 31, 1965 (gage height, 6.68 ft); maximum gage height, 7.10 ft Feb. 3, 1963 (ice jam); minimum discharge, 0.80 cfs Aug. 11, 12, 1966.

REMARKS.--Records good. Regulation by several reservoirs, the largest being Phillips Lake since Oct. 31, 1967 (active capacity, 90,540 acre-ft) and Thief Valley Reservoir (capacity, 17,400 acre-ft). Many diversions for irrigation above and below station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	45	73	150	921	529	738	970	1,350	708	33	54
2	54	44	69	130	921	490	756	963	1,360	618	33	49
3	57	44	70	125	834	501	780	977	1,350	545	39	63
4	56	43	73	120	732	518	798	1,120	1,360	523	40	103
5	56	46	156	115	630	523	828	1,260	1,350	480	39	72
6	59	49	209	120	551	496	876	1,290	1,320	431	48	66
7	55	52	249	150	475	496	1,020	1,240	1,220	377	50	69
8	54	55	270	170	460	485	1,160	1,220	1,160	346	46	69
9	59	68	288	165	455	490	1,130	1,290	1,150	318	54	64
10	68	65	273	200	512	501	1,100	1,340	1,130	249	49	73
11	67	63	220	240	792	518	1,100	1,270	1,140	193	46	72
12	66	81	160	190	888	556	1,030	1,210	1,150	165	48	66
13	63	71	145	180	852	618	956	1,190	1,150	152	50	72
14	65	63	145	200	816	573	928	1,240	1,230	147	56	69
15	67	59	165	340	786	507	991	1,220	1,220	124	50	64
16	67	58	150	1,040	750	470	1,040	1,100	1,150	99	59	69
17	51	56	152	1,790	714	450	1,050	1,060	1,080	83	63	72
18	42	57	150	2,710	678	418	1,030	928	998	65	59	71
19	44	60	140	2,770	678	404	998	810	970	54	62	72
20	47	58	160	2,800	636	400	1,010	714	956	68	56	79
21	48	55	170	1,740	595	386	1,050	624	942	66	56	79
22	49	59	160	1,140	573	382	1,070	518	998	59	62	74
23	53	49	155	864	545	409	1,070	455	1,050	50	71	81
24	58	60	140	726	507	475	1,070	427	1,020	56	69	76
25	56	81	130	666	496	551	991	404	935	56	68	93
26	54	73	150	702	496	684	963	470	894	44	63	81
27	50	69	160	774	518	786	970	846	900	59	57	88
28	47	67	169	732	540	780	963	1,290	921	63	26	92
29	46	65	162	708	------	744	963	1,440	882	60	18	105
30	46	71	152	690	------	732	991	1,540	804	39	39	107
31	45	------	165	798	------	762	------	1,480	------	37	53	------
TOTAL	1,708	1,786	5,030	23,245	18,351	16,634	29,420	31,906	33,140	6,334	1,562	2,254
MEAN	55.1	59.5	162	750	655	537	981	1,029	1,105	204	50.4	75.1
MAX	68	81	288	2,800	921	786	1,160	1,540	1,360	708	71	107
MIN	42	43	69	115	455	382	738	404	804	37	18	49
AC-FT	3,390	3,540	9,980	46,110	36,400	32,990	58,350	63,290	65,730	12,560	3,100	4,470

CAL YR 1970 TOTAL 93,191 MEAN 255 MAX 1,060 MIN 13 AC-FT 184,800
WTR YR 1971 TOTAL 171,370 MEAN 470 MAX 2,800 MIN 18 AC-FT 339,900

13288200 Eagle Creek above Skull Creek, near New Bridge, Oreg.

LOCATION.--Lat 44°52'50", long 117°15'10", in SE¼ sec.7, T.8 S., R.45 E., Baker County, Wallowa-Whitman National Forest, on left bank 0.5 mile upstream from Skull Creek and 6.5 miles northwest of New Bridge.

DRAINAGE AREA.--156 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 326 cfs (236,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,960 cfs May 28 (gage height, 3.81 ft); minimum, 59 cfs Nov. 22.
Period of record: Maximum discharge, 2,940 cfs May 28, 1971 (gage height, 3.81 ft); maximum gage height, 6.88 ft Jan. 25, 1962 (ice jam); minimum daily discharge, 44 cfs Dec. 17, 1964.

REMARKS.--Records excellent. No regulation. Some diversions above station for irrigation and one small interbasin diversion for irrigation supply. All diversions are small compared to flow at station during irrigation season.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	112	135	120	232	138	249	824	1,210	965	334	151
2	92	115	138	100	228	144	257	1,070	1,030	1,030	319	151
3	92	115	129	100	213	160	270	1,400	983	983	310	151
4	90	115	121	96	206	148	292	1,640	965	938	292	148
5	97	135	129	94	191	141	334	1,560	992	947	278	141
6	94	138	135	100	163	132	380	1,470	1,030	904	265	141
7	92	135	160	130	157	138	564	1,560	1,200	824	257	138
8	90	141	157	140	157	132	538	1,720	1,450	816	244	138
9	99	148	151	177	170	132	508	1,720	1,490	864	232	135
10	115	132	129	151	209	135	496	1,700	1,390	929	221	132
11	99	148	141	129	221	141	448	1,760	1,370	824	213	129
12	102	144	107	118	206	141	413	1,970	1,480	746	206	129
13	99	126	97	110	213	141	408	2,260	1,780	739	194	126
14	97	118	135	110	217	135	454	1,780	1,640	768	188	126
15	94	124	157	110	221	135	557	1,490	1,500	792	180	126
16	94	124	138	124	213	126	544	1,340	1,450	840	177	126
17	92	121	124	177	209	126	514	1,120	1,330	872	174	124
18	92	121	107	206	206	121	466	956	1,440	824	166	124
19	97	118	138	221	202	124	466	888	1,520	739	163	121
20	118	118	151	232	191	126	514	824	1,560	711	163	121
21	115	107	135	202	184	129	526	768	1,830	704	170	118
22	112	80	129	191	184	141	526	784	2,120	662	166	112
23	121	118	126	181	177	163	526	880	2,020	592	170	112
24	115	167	138	167	181	184	490	1,050	1,680	538	163	110
25	110	198	126	160	170	188	496	1,290	2,280	496	160	110
26	107	157	120	160	163	310	557	1,700	1,710	460	157	112
27	92	144	110	154	163	301	585	2,370	1,210	436	154	121
28	99	138	120	151	157	261	585	2,620	983	419	151	115
29	104	151	124	148	------	249	655	2,390	848	396	151	126
30	107	154	120	170	------	257	711	1,910	872	374	151	118
31	110	------	124	221	------	253	------	1,440	------	354	151	------
TOTAL	3,126	3,962	4,051	4,650	5,404	5,152	14,329	46,254	42,363	22,486	6,320	3,832
MEAN	101	132	131	150	193	166	478	1,492	1,412	725	204	128
MAX	121	198	160	232	232	310	711	2,620	2,280	1,030	334	151
MIN	90	80	97	94	157	121	249	768	848	354	151	110
AC-FT	6,200	7,860	8,040	9,220	10,720	10,220	28,420	91,740	84,030	44,600	12,540	7,600

CAL YR 1970 TOTAL 130,597 MEAN 358 MAX 2,280 MIN 50 AC-FT 259,000
WTR YR 1971 TOTAL 161,929 MEAN 444 MAX 2,620 MIN 80 AC-FT 321,200

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-12	2400	3.59	2,530	6-25	1330	3.70	2,730
5-28	2330	3.81	2,940				

13289700 Brownlee Reservoir at Brownlee Dam, Idaho-Oregon State line

LOCATION.--Lat 44°50'08", long 116°53'58", in SE¼SE¼ sec.2, T.17 N., R.5 W., Washington County, at Brownlee Dam on Snake River near Idaho end of dam, 1.1 miles upstream from Wildhorse River, 3.5 miles downstream from Brownlee Creek, 10.5 miles east of Halfway, Oreg., and at mile 285.0.

DRAINAGE AREA.--72,590 sq mi, approximately.

PERIOD OF RECORD.--May 1958 to current year. Published as "at Idaho-Oregon State line" 1958-59.

GAGE.--Remote registering water-stage recorder. Datum of gage is mean sea level, Idaho Power Co. datum. Prior to Feb. 2, 1959, nonrecording gage or levels to water surface at present site and datum.

EXTREMES.--Current year: Maximum contents, 1,443,000 acre-ft July 22 (elevation, 2,078.15 ft); minimum, 441,200 acre-ft Apr. 25 (elevation, 1,975.20 ft).

Period of record: Maximum contents, 1,453,500 acre-ft Aug. 6, 1962 (elevation, 2,078.91 ft); minimum since full capacity was attained June 23, 1959, 446,300 acre-ft May 11, 1965 (elevation, 1,975.98 ft).

REMARKS.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal pool elevation, 2,077 ft. Water is used for power generation.

COOPERATION.--Water-stage recorder graph and capacity table furnished by Idaho Power Co.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,975.0	439,800	2,040.0	977,100
1,980.0	473,900	2,060.0	1,198,000
2,000.0	618,700	2,080.0	1,469,000
2,020.0	786,400		

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,416.00	1,432.00	1,388.00	1,246.00	1,349.00	924.70	665.00	479.80	1,015.00	1,420.00	1,427.00	1,432.00
2	1,417.00	1,432.00	1,387.00	1,243.00	1,348.00	899.40	650.70	465.70	1,034.00	1,418.00	1,429.00	1,425.00
3	1,415.00	1,432.00	1,386.00	1,238.00	1,347.00	875.60	642.80	453.40	1,055.00	1,417.00	1,430.00	1,424.00
4	1,416.00	1,426.00	1,385.00	1,228.00	1,349.00	856.60	634.30	453.80	1,070.00	1,416.00	1,429.00	1,423.00
5	1,415.00	1,422.00	1,386.00	1,216.00	1,346.00	835.80	629.00	461.00	1,095.00	1,411.00	1,428.00	1,423.00
6	1,409.00	1,418.00	1,387.00	1,209.00	1,346.00	811.80	619.00	453.90	1,122.00	1,410.00	1,428.00	1,422.00
7	1,408.00	1,419.00	1,394.00	1,202.00	1,328.00	785.80	612.40	447.50	1,152.00	1,409.00	1,429.00	1,420.00
8	1,406.00	1,422.00	1,413.00	1,196.00	1,318.00	769.30	611.90	448.30	1,177.00	1,423.00	1,430.00	1,418.00
9	1,406.00	1,423.00	1,426.00	1,197.00	1,299.00	744.10	610.00	449.80	1,213.00	1,433.00	1,430.00	1,416.00
10	1,411.00	1,424.00	1,435.00	1,199.00	1,281.00	718.10	598.40	450.60	1,246.00	1,434.00	1,429.00	1,413.00
11	1,417.00	1,426.00	1,432.00	1,207.00	1,272.00	698.10	586.80	466.80	1,272.00	1,431.00	1,430.00	1,411.00
12	1,418.00	1,426.00	1,426.00	1,207.00	1,260.00	689.00	578.50	503.00	1,294.00	1,434.00	1,429.00	1,413.00
13	1,418.00	1,427.00	1,411.00	1,207.00	1,246.00	694.30	559.10	554.70	1,309.00	1,431.00	1,427.00	1,407.00
14	1,420.00	1,422.00	1,394.00	1,208.00	1,235.00	704.30	535.70	611.90	1,323.00	1,434.00	1,426.00	1,404.00
15	1,425.00	1,417.00	1,382.00	1,212.00	1,227.00	690.40	508.70	662.00	1,337.00	1,428.00	1,430.00	1,401.00
16	1,425.00	1,412.00	1,370.00	1,226.00	1,211.00	672.60	485.30	704.20	1,351.00	1,429.00	1,430.00	1,395.00
17	1,425.00	1,396.00	1,356.00	1,253.00	1,197.00	656.50	466.70	743.60	1,360.00	1,434.00	1,431.00	1,390.00
18	1,424.00	1,385.00	1,342.00	1,288.00	1,182.00	644.00	451.10	778.80	1,371.00	1,436.00	1,430.00	1,389.00
19	1,424.00	1,372.00	1,335.00	1,330.00	1,164.00	627.10	444.10	797.10	1,380.00	1,437.00	1,429.00	1,391.00
20	1,426.00	1,360.00	1,324.00	1,378.00	1,150.00	618.20	445.40	799.10	1,390.00	1,438.00	1,428.00	1,389.00
21	1,426.00	1,346.00	1,314.00	1,406.00	1,130.00	609.10	454.80	810.20	1,397.00	1,440.00	1,429.00	1,386.00
22	1,426.00	1,346.00	1,307.00	1,417.00	1,112.00	593.60	462.40	821.10	1,400.00	1,438.00	1,431.00	1,383.00
23	1,423.00	1,322.00	1,297.00	1,417.00	1,093.00	577.70	456.10	827.40	1,405.00	1,434.00	1,432.00	1,380.00
24	1,418.00	1,316.00	1,284.00	1,414.00	1,070.00	569.90	445.50	837.30	1,418.00	1,435.00	1,434.00	1,378.00
25	1,416.00	1,322.00	1,273.00	1,399.00	1,049.00	569.90	443.20	858.60	1,419.00	1,432.00	1,436.00	1,377.00
26	1,413.00	1,342.00	1,270.00	1,386.00	1,025.00	591.60	480.10	869.60	1,416.00	1,429.00	1,437.00	1,383.00
27	1,415.00	1,350.00	1,267.00	1,380.00	991.40	629.90	527.80	886.90	1,413.00	1,431.00	1,436.00	1,383.00
28	1,416.00	1,364.00	1,263.00	1,378.00	953.50	655.90	532.00	910.90	1,413.00	1,431.00	1,436.00	1,383.00
29	1,417.00	1,380.00	1,256.00	1,350.00	-------	673.40	515.10	941.60	1,417.00	1,431.00	1,438.00	1,383.00
30	1,420.00	1,384.00	1,251.00	1,347.00	-------	683.20	499.00	973.20	1,422.00	1,432.00	1,441.00	1,388.00
31	1,426.00	-------	1,247.00	1,347.00	-------	675.70	-------	990.50	-------	1,432.00	1,440.00	-------
MAX	1,426.00	1,432.00	1,435.00	1,417.00	1,349.00	924.70	665.00	990.50	1,422.00	1,440.00	1,441.00	1,432.00
MIN	1,406.00	1,316.00	1,247.00	1,196.00	953.50	569.90	443.20	447.50	1,015.00	1,409.00	1,426.00	1,377.00
(†)	2,076.95	2,973.90	2,063.79	2,071.26	2,037.58	2,007.31	1,983.56	2,041.36	2,076.64	2,077.35	2,077.95	2,074.20
(‡)	+8	-42	-137	+100	-393.5	-277.8	-176.7	+491.5	+431.5	+10	+8	-52

CAL YR 1970 MAX 1,447.00 MIN 851.4 ‡ -19
WTR YR 1971 MAX 1,441.00 MIN 443.2 ‡ -30

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

13290000 Snake River at Oxbow, Oreg.

LOCATION.--Lat 44°58'00", long 116°50'44", in SW¼SE¼ sec.9, T.7 S., R.48 E., Baker County, just upstream from intakes to Oxbow powerplant, 0.8 mile southeast of Oxbow, and at mile 273.5.

DRAINAGE AREA.--72,800 sq mi, approximately.

PERIOD OF RECORD.--May 1923 to March 1958, October 1967 to current year.

GAGE.--Foxboro Flow Meter with accumulating integrator on each of four penstocks, dial gage on each of three spillway gates, and water-stage recorder on Oxbow Reservoir. Prior to Dec. 20, 1923, nonrecording gage at site 0.6 mile upstream at different datum. Dec. 20, 1923, to Mar. 8, 1958, water-stage recorder at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE.--38 years (1923-57, 1967-71), 18,090 cfs (13,110,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 69,700 cfs Apr. 12; minimum daily, 7,870 cfs Aug. 15.
Period of record: Maximum discharge, 89,700 cfs Apr. 28, 1952 (gage height, 23.10 ft); maximum gage height, about 29 ft (ice jam), from floodmark, sometime during period Jan. 17-27, 1949; minimum daily discharge, 3,250 cfs May 26, 1968.

REMARKS.--Flow regulated by many reservoirs above station, the most effective of which is Brownlee Reservoir 11.5 miles upstream (see sta 13289700). Oxbow Dam and powerplant started operation in 1958. Diversions above station for irrigation of about 3,800,000 acres of which about 742,000 acres are by withdrawals from ground water (1966 determination). Records of water temperatures for water year 1971 at site 0.6 mile downstream from tailrace of powerplant are published in Part 2 of this report (see sta 13290200).

COOPERATION.--Integrator charts, a log of gate and valve operation for spillway, and reservoir elevations furnished by Idaho Power Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,700	16,200	19,700	21,100	28,200	39,900	53,000	61,600	32,200	49,200	10,200	15,900
2	14,600	17,400	18,700	21,400	33,600	39,000	57,500	64,600	31,600	48,500	11,900	15,400
3	14,500	18,400	21,200	21,400	39,600	34,200	55,000	61,900	31,900	46,700	9,380	14,900
4	15,500	17,100	19,100	24,900	37,600	32,300	59,700	56,700	29,200	45,000	10,900	14,000
5	15,900	16,900	19,600	23,400	35,700	33,700	57,900	57,200	28,700	43,000	11,500	12,800
6	16,200	18,800	17,300	20,800	36,400	34,400	57,100	61,000	28,800	39,400	10,200	15,600
7	15,300	12,300	21,500	19,800	38,200	37,100	56,900	61,300	29,600	31,200	10,000	14,500
8	16,000	14,000	20,200	18,900	37,800	34,700	55,800	57,600	29,800	20,300	12,300	15,200
9	13,900	17,000	18,600	20,800	40,100	35,900	58,500	58,400	29,200	21,000	11,200	15,200
10	12,500	17,100	27,500	19,100	39,200	39,700	66,600	61,200	31,100	22,500	11,600	16,100
11	12,500	16,700	24,300	19,200	37,600	35,400	61,700	55,300	30,200	19,800	11,100	15,000
12	15,800	18,700	26,000	21,200	37,900	33,800	69,700	43,200	28,900	19,500	12,000	13,100
13	16,500	17,800	26,700	21,300	39,400	28,300	68,100	37,200	30,600	16,200	11,600	16,700
14	14,700	19,900	26,500	22,000	39,300	26,100	67,600	35,300	32,400	17,400	11,000	13,700
15	16,500	17,400	26,900	23,100	44,300	36,500	67,700	38,800	31,000	13,400	7,870	16,600
16	16,500	25,000	26,300	25,500	41,900	36,100	68,300	38,100	30,400	13,300	11,800	16,100
17	17,700	24,200	24,500	28,900	44,100	34,900	63,700	39,700	32,000	11,500	9,620	15,400
18	17,600	23,600	24,800	32,000	44,500	32,800	62,300	39,800	32,200	12,600	11,900	14,500
19	15,800	22,800	24,300	42,400	45,100	38,200	58,400	44,400	34,500	12,500	10,800	13,400
20	16,400	23,400	23,900	38,800	45,700	30,500	53,800	49,700	33,800	12,400	12,000	15,700
21	19,200	23,400	24,200	47,200	40,900	33,900	51,500	41,800	35,400	12,100	11,100	16,200
22	18,700	23,700	23,900	51,300	44,900	41,600	54,200	43,000	36,800	13,200	9,660	15,900
23	19,900	22,100	23,200	47,900	43,700	41,100	56,200	42,000	29,800	14,000	12,500	15,600
24	20,300	19,900	23,200	48,500	43,600	41,100	57,400	43,000	34,100	13,700	9,380	15,100
25	20,300	17,300	22,800	48,700	45,500	44,300	56,100	41,800	39,400	12,000	10,200	14,200
26	17,100	14,100	19,900	45,800	43,300	41,800	33,800	42,600	41,000	11,800	12,600	12,900
27	16,700	15,600	20,400	43,500	45,300	41,800	33,500	35,900	49,000	11,100	12,900	15,800
28	18,800	13,000	23,100	44,400	44,300	41,400	53,100	33,800	51,800	11,500	11,100	15,000
29	14,400	13,500	23,600	41,700	------	45,100	64,000	31,400	48,600	11,600	8,730	15,300
30	15,000	18,800	23,200	38,700	------	49,500	65,000	35,100	49,700	11,900	13,700	14,600
31	13,200	------	21,400	34,000	------	49,200	------	34,700	------	12,700	12,000	------
TOTAL	503,700	556,100	706,500	977,700	1,137.7M	1,164.3M	1,744.1M	1,448.1M	1,033.7M	651,000	342,740	450,600
MEAN	16,250	18,540	22,790	31,540	40,630	37,560	58,140	46,710	34,460	21,000	11,060	15,020
MAX	20,300	25,000	27,500	51,300	45,700	49,500	69,700	64,600	51,800	49,200	13,700	16,700
MIN	12,500	12,300	17,300	18,900	28,200	26,100	33,500	31,400	28,700	11,100	7,870	12,800
AC-FT	999,100	1,103M	1,401M	1,939M	2,257M	2,309M	3,459M	2,872M	2,050M	1,291M	679,800	893,800

CAL YR 1970 TOTAL 7,397,870 MEAN 20,270 MAX 46,100 MIN 7,940 AC-FT 14,670,000
WTR YR 1971 TOTAL 10,716,240 MEAN 29,360 MAX 69,700 MIN 7,870 AC-FT 21,260,000

13290190 Pine Creek near Oxbow, Oreg.

LOCATION.--Lat 44°57'13", long 116°52'21", in NE¼SW¼ sec.17, T.7 S., R.48 E., Baker County, 1.8 miles south of Oxbow, and at mile 1.9.

DRAINAGE AREA.--230 sq mi, approximately.

PERIOD OF RECORD.--November 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,850.48 ft above mean sea level (levels by Idaho Power Co.). Prior to Aug. 24, 1967, nonrecording gage at site 1.7 miles downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 2,940 cfs May 29 (gage height, 7.25 ft); minimum, 39 cfs Aug. 28, 29 (gage height, 3.15 ft).
Period of record: Maximum discharge, 7,110 cfs Feb. 21, 1968 (gage height, 9.82 ft); minimum, 26 cfs Aug. 25, 1969 (gage height, 3.19 ft).

REMARKS.--Records good. Diversions above station for irrigation of about 19,000 acres (1966 determination).

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 22-26, Jan. 2-6)

3.0	30	4.5	331
3.2	45	5.0	563
3.5	82	6.0	1,330
4.0	180	7.1	2,690

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	93	327	178	510	275	730	1,140	1,330	806	75	90
2	97	92	327	110	536	259	691	1,490	1,190	898	73	92
3	97	92	299	110	498	272	698	1,850	1,060	778	71	94
4	97	93	299	120	481	269	746	2,470	1,070	736	68	94
5	97	107	285	120	455	267	792	2,250	1,070	717	72	92
6	99	150	306	106	383	274	881	1,880	1,100	666	71	90
7	83	147	771	100	367	232	1,300	1,970	1,100	590	68	90
8	83	166	1,260	109	327	226	1,120	1,940	1,600	546	63	91
9	66	320	944	100	309	227	1,010	1,660	1,610	561	59	91
10	68	229	685	103	361	[illegible]	1,010	1,790	1,460	500	56	67
11	65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	267	391	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	216	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	190	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	171	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	261	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------

[illegible]

13290450 Snake River at Hells Canyon Dam, Idaho-Oregon State line

LOCATION.--Lat 45°15'05", long 116°41'50", in SE¼SE¼ sec.33, T.3 S., R.49 E. (Willamette meridian, unsurveyed), Wallowa County, Wallowa National Forest, on left bank 0.2 mile upstream from Hells Canyon Creek, 0.4 mile downstream from Deep Creek, 0.6 mile downstream from Hells Canyon Dam, 15.5 miles northeast of Homestead, Oreg., and at mile 247.0.

DRAINAGE AREA.--73,300 sq mi, approximately.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400 ft above mean sea level (levels by Idaho Power Co.).

AVERAGE DISCHARGE.--6 years, 20,280 cfs (14,690,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 75,800 cfs Apr. 15 (gage height, 81.55 ft); minimum, 5,280 cfs Aug. 26 (gage height, 62.59 ft); minimum daily discharge, 9,090 cfs Aug. 26.
Period of record: Maximum discharge, 75,800 cfs Apr. 15, 1971 (gage height, 81.55 ft); minimum, 1,580 cfs Mar. 19, 1967 (gage height, 59.9 ft); minimum daily, 4,950 cfs May 26, 1968.

REMARKS.--Records excellent. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet, the most effective of which is Brownlee Reservoir 38 miles upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant. Diversions above station for irrigation of about 3,820,000 acres of which 742,000 acres are by withdrawals from ground water (1966 determination). Records of chemical analyses for the water year 1971 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

64.7	9,090	72.0	31,700
66.0	12,000	75.0	44,600
68.0	17,500	78.0	57,700
70.0	24,200	81.0	72,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16,200	14,100	20,800	21,700	39,400	44,200	60,500	64,900	57,900	50,400	11,200	14,500
2	16,600	18,600	22,100	22,600	39,400	39,600	61,000	65,000	57,000	50,400	11,700	16,300
3	14,300	19,600	21,200	23,400	39,200	39,600	62,400	63,000	55,800	50,200	11,000	16,100
4	14,700	18,800	20,800	25,000	39,400	36,700	62,700	60,000	54,100	47,400	10,700	14,500
5	16,900	18,400	19,100	24,700	39,300	39,000	62,400	59,500	52,900	45,100	11,000	13,600
6	16,800	18,800	19,500	24,300	39,300	38,900	62,000	60,700	52,900	42,000	11,400	13,500
7	16,600	14,800	22,600	24,300	39,200	39,000	62,200	62,400	53,400	32,600	10,400	16,000
8	16,100	14,300	24,300	22,400	40,800	38,500	62,400	60,000	54,600	25,900	11,000	16,700
9	15,900	19,200	24,100	16,300	43,500	39,100	65,000	63,200	54,800	22,600	10,900	17,000
10	16,100	17,700	26,200	21,300	43,900	39,000	70,100	65,400	54,900	23,100	11,200	16,500
11	11,200	18,600	28,700	22,600	43,600	39,100	68,900	60,900	56,900	26,000	11,400	15,800
12	15,400	19,900	29,300	21,900	43,600	39,000	70,600	66,100	54,900	22,600	11,800	15,900
13	16,700	20,100	28,200	22,200	43,700	38,200	71,500	60,200	56,900	19,300	12,000	16,300
14	18,500	18,700	29,100	23,500	43,900	23,600	73,400	59,600	55,100	17,200	11,500	15,200
15	17,300	17,600	30,300	26,100	43,800	39,100	75,700	60,500	55,000	17,100	10,600	15,200
16	19,600	25,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	[illegible]	------	[illegible]	------	[illegible]	[illegible]	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

SNAKE RIVER MAIN STEM

13290500 Snake River near Joseph, Idaho

LOCATION.--Lat 45°49'02", long 116°45'12", in NE¼NE¼ sec.24, T.4 N., R.48 E. (Willamette meridian, unsurveyed), Wallowa County, Wallowa National Forest, on left bank at China Gulch, 0.5 mile upstream from Imnaha River, 0.9 mile downstream from Divide Creek, 13 miles west of Joseph, 22 miles west of White Bird, and at mile 192.3.

DRAINAGE AREA.--73,800 sq mi, approximately.

PERIOD OF RECORD.--April 1955 to February 1971 (destroyed by flood of February 1971).

GAGE.--Water-stage recorder. Datum of gage is 940.54 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 18,690 cfs (13,541,000 acre-ft per year).

EXTREMES.--Maximum discharge during period October 1970 to February 1971, 61,400 cfs Jan. 22 (gage height, 16.57 ft); minimum, 11,100 cfs Nov. 1 (gage height, 1.77 ft).

Period of record: Maximum discharge, 80,800 cfs Dec. 26, 1964 (gage height, 20.16 ft); minimum daily, 1,050 cfs Sept. 1, 1958.

REMARKS.--Records good. Flow regulated by many reservoirs above station, the most effective of which is Brownlee Reservoir 92.7 miles upstream (see sta 13289700). Diurnal fluctuation caused by Hells Canyon powerplant 54.7 miles upstream. Diversions above station for irrigation of about 3,820,000 acres of which about 742,000 acres are by withdrawals from ground water (1966 determination).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.0	9,430
5.0	18,800
10.0	33,500
14.0	49,200
17.0	63,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19,700	14,700	20,500	20,600	39,700							
2	17,300	16,900	21,600	21,800	39,600							
3	16,900	18,900	21,500	22,600	39,400							
4	16,300	19,100	20,800	24,100	39,200							
5	16,400	18,300	19,800	24,600	39,100							
6	17,100	18,200	19,900	25,900	38,900							
7	16,800	15,800	20,500	25,800	38,700							
8	16,200	14,100	24,000	22,700	39,200							
9	16,900	18,200	23,700	18,900	43,300							
10	16,700	17,500	24,500	18,900	43,300							
11	12,600	18,400	27,000	22,100	43,200							
12	13,700	19,000	28,200	21,400	43,200							
13	16,700	19,500	27,500	22,400	43,400							
14	17,000	18,400	27,900	22,400								
15	17,000	17,500	29,000	23,500								
16	[illegible]	[illegible]	[illegible]	[illegible]								
17	[illegible]	[illegible]	[illegible]	[illegible]								
18	[illegible]	[illegible]	[illegible]	[illegible]								
19	[illegible]	[illegible]	[illegible]	[illegible]								
20	[illegible]	[illegible]	[illegible]	[illegible]								
21	[illegible]	[illegible]	[illegible]	[illegible]								
22	[illegible]	[illegible]	[illegible]	[illegible]								
23	[illegible]	[illegible]	[illegible]	[illegible]								
24	[illegible]	[illegible]	[illegible]	[illegible]								
25	[illegible]	[illegible]	[illegible]	[illegible]								
26	[illegible]	[illegible]	[illegible]	[illegible]								
27	[illegible]	[illegible]	[illegible]	[illegible]								
28	[illegible]	[illegible]	[illegible]	[illegible]								
29	[illegible]	[illegible]	[illegible]	[illegible]	-------							
30	[illegible]	[illegible]	[illegible]	[illegible]	-------							
31	[illegible]	-------	[illegible]	[illegible]	-------		-------		-------			-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]								
MEAN	[illegible]	[illegible]	[illegible]	[illegible]								
MAX	[illegible]	[illegible]	[illegible]	[illegible]								
MIN	[illegible]	[illegible]	[illegible]	[illegible]								
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]								

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

13292000 Imnaha River at Imnaha, Oreg.

LOCATION.--Lat 45°33'45", long 116°50'00", in SW¼ sec.16, T.1 N., R.48 E., Wallowa County, on left bank at Imnaha, 0.3 mile downstream from Big Sheep Creek, and at mile 19.3.

DRAINAGE AREA.--622 sq mi.

PERIOD OF RECORD.--June 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,94.14 ft above mean sea level. Prior to Aug. 6, 1934, nonrecording gage at site 0.25 mile upstream at different datum. Aug. 6-31, 1934, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--43 years, 508 cfs (368,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,350 cfs May 4 (gage height, 6.25 ft); minimum 43 cfs Jan. 2.
Period of record: Maximum discharge, 6,650 cfs May 19, 1957 (gage height, 6.80 ft), from rating curve extended above 3,300 cfs; minimum observed, 16 cfs Nov. 22, 1931, result of freezeup; minimum daily, 25 cfs Nov. 22, 23, 1931.

REMARKS.--Records excellent. No regulation. Diversions for irrigation above station. Water is diverted from Big Sheep Creek and tributaries above station for irrigation in Wallowa River basin.

REVISIONS (WATER YEARS).--WSP 833: 1938. WSP 1319: 1929, 1932(M), 1949. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	220	260	153	595	289	667	1,890	2,120	1,330	470	224
2	150	210	263	72	656	232	624	2,450	1,940	1,460	460	227
3	149	210	229	90	614	290	610	3,240	1,790	1,410	445	230
4	148	212	215	100	551	276	630	4,500	1,680	1,350	420	214
5	149	230	225	130	488	251	709	4,240	1,640	1,390	402	201
6	156	250	261	152	391	222	895	3,490	1,620	1,330	389	195
7	153	262	324	202	375	262	1,380	3,450	1,730	1,230	411	192
8	151	250	429	250	384	248	1,230	3,490	2,160	1,120	371	199
9	165	263	414	313	362	242	1,060	3,610	2,240	1,210	349	186
10	205	246	340	283	383	237	1,180	3,250	2,080	1,390	327	180
11	177	263	330	293	382	256	1,090	3,190	2,030	1,240	320	174
12	166	262	257	213	369	287	946	3,500	1,980	1,110	305	174
13	159	237	229	213	404	293	889	4,050	2,230	1,060	294	168
14	156	217	267	222	698	277	967	3,380	2,200	1,070	283	168
15	155	222	296	232	506	285	1,260	2,710	1,990	1,110	277	165
16	155	[illegible]	291	290	509	260	1,250	2,630	1,900	1,190	265	163
17	153	[illegible]	257	[illegible]	492	267	1,230	2,100	1,820	1,200	258	165
18	158	[illegible]	232	[illegible]	467	238	1,293	1,870	1,800	1,130	251	165
19	158	[illegible]	[illegible]	[illegible]	446	244	960	1,710	1,970	997	244	171
20	163	[illegible]	253	[illegible]	407	257	1,030	1,930	1,920	969	237	183
21	[illegible]	[illegible]	[illegible]	[illegible]	359	257	1,130	1,610	2,090	926	236	199
22	[illegible]	[illegible]	[illegible]	[illegible]	376	264	1,190	1,340	2,200	870	237	196
23	[illegible]	[illegible]	[illegible]	[illegible]	351	312	1,210	1,480	2,300	804	251	180
24	[illegible]	[illegible]	[illegible]	[illegible]	360	421	1,190	1,790	2,090	754	236	177
25	[illegible]	[illegible]	[illegible]	[illegible]	330	477	1,290	2,030	2,460	695	226	171
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

13318800 Grande Ronde River at Hilgard, Oreg.

LOCATION.--Lat 45°20'21", long 118°14'35", in NE¼NE¼ sec.1, T.3 S., R.36 E., Union County, on left bank 8.8 miles northwest of La Grande, 1.6 miles upstream from Fivepoint Creek, and at mile 171.3.

DRAINAGE AREA.--555 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,993.62 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 275 cfs (199,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,450 cfs Jan. 18 (gage height, 5.49 ft); minimum, 20 cfs Sept. 13, 14.
Period of record: Maximum discharge, 3,030 cfs Jan. 23, 1970 (gage height, 5.94 ft); maximum gage height, 9.18 ft Jan. 18, 1971 (ice jam); minimum, 9.9 cfs Nov. 29, 1969.
Flood of Jan. 30, 1965, reached a stage of about 9 ft, from floodmark (discharge not determined).

REMARKS.--Records excellent except those for December and January, which are fair. Slight regulation by city of La Grande reservoir on Beaver Creek (capacity, about 900 acre-ft). Diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 cfs from Beaver Creek above station for domestic water supply.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	63	177	80	1,020	239	616	814	655	196	42	28
2	29	62	193	73	879	185	588	1,010	651	183	49	38
3	29	59	158	70	703	279	562	1,270	801	171	53	41
4	28	67	166	64	607	233	557	1,470	984	159	47	38
5	29	67	151	63	520	208	591	1,420	912	150	42	31
6	31	82	179	70	376	169	714	1,310	828	142	41	27
7	35	88	238	84	352	207	1,290	1,230	768	135	44	27
8	35	98	244	280	349	191	1,150	1,250	733	128	50	26
9	46	98	246	700	338	187	1,060	1,320	672	138	41	25
10	107	102	169	680	643	187	1,100	1,250	635	188	37	23
11	82	107	226	500	716	200	962	1,190	651	158	34	22
12	64	147	120	350	650	219	843	1,240	577	134	32	21
13	55	147	82	253	654	209	752	1,360	588	121	31	21
14	50	122	88	250	647	181	728	1,190	538	111	29	20
15	47	133	80	270	713	201	760	1,050	482	102	29	21
16	44	119	100	270	650	157	709	1,160	638	95	20	22
17	43	114	86	750	597	179	739	932	600	89	20	22
18	49	122	70	2,030	545	148	688	900	580	83	26	22
19	81	116	80	1,780	490	170	633	720	611	81	26	23
20	72	113	80	1,760	439	190	641	646	362	80	25	24
21	66	90	80	1,170	375	226	737	560	362	75	25	27
22	66	71	76	824	405	266	767	523	367	69	26	29
23	65	115	87	661	364	541	866	526	325	65	33	27
24	81	106	89	562	376	884	879	530	297	61	32	26
25	79	313	75	529	350	780	856	625	296	59	20	27
26	79	256	80	619	293	861	833	166	304	56	27	42
27	57	236	87	552	706	866	799	831	267	54	26	41
28	59	230	83	520	267	701	776	810	265	52	26	38
29	67	227	84	473	-------	673	760	709	266	51	23	39
30	61	273	86	471	-------	707	766	692	216	48	23	42
31	76	-------	101	1,290	-------	756	-------	657	-------	46	26	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX 2,030 MIN 20 AC-FT [illegible]

PEAK DISCHARGE (BASE, 1,700 CFS).--Jan. 18 (1000) 2,450 cfs (5.49 ft).

13319000 Grande Ronde River at La Grande, Oreg.

LOCATION.--Lat 45°20'47", long 118°07'26", in NW¼SE¼ sec.36, T.2 S., R.37 E., Union County, on right bank 1.8 miles northwest of La Grande, 5.7 miles downstream from Fivepoint Creek, and at mile 164.0.

DRAINAGE AREA.--678 sq mi.

PERIOD OF RECORD.--October 1903 to September 1915, February 1918 to September 1923, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "Hilgard" 1903-15.

GAGE.--Water-stage recorder. Datum of gage is 2,826.25 ft above mean sea level. Nov. 6, 1903, to Sept. 30, 1915, nonrecording gage at site 5.5 miles upstream, 0.2 mile downstream from Fivepoint Creek, at various datums. Feb. 16, 1918, to June 28, 1923, and Oct. 1, 1925, to Nov. 24, 1931, nonrecording gage at site 0.7 mile downstream at various datums. Nov. 24, 1931, to Oct. 8, 1965, water-stage recorder at site 0.3 mile upstream at datum 4.61 ft higher.

AVERAGE DISCHARGE:--63 years, 377 cfs (273,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,990 cfs Jan. 19 (gage height, 6.43 ft); minimum, 24 cfs Sept. 14-17, 19.
Period of record: Maximum discharge, 14,100 cfs Jan. 30, 1965 (gage height, 11.44 ft, site and datum then in use); from rating curve extended above 7,200 cfs; minimum, 3.9 cfs Aug. 26, 1940.

REMARKS.--Records excellent. Since 1915, slight regulation by city of La Grande reservoir on Beaver Creek (capacity, about 900 acre-ft). Diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 cfs from Beaver Creek above station for domestic water supply.

REVISIONS (WATER YEARS).--WSP 768: 1933. WSP 1397: 1904-11, 1913, 1915, 1919-20, 1922-23, 1926, 1929-31, 1936-37, 1939, 1962. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	76	216	100	1,463	332	884	1,130	836	221	47	29
2	34	72	228	88	1,252	246	834	1,370	863	204	50	39
3	33	65	186	88	1,323	388	789	1,730	1,140	191	51	45
4	30	71	193	80	874	325	784	1,910	1,390	177	47	44
5	31	79	169	76	734	291	850	1,820	1,240	165	41	37
6	36	93	208	94	533	225	1,050	1,690	1,110	155	40	33
7	38	122	242	105	489	285	1,770	1,580	1,020	147	38	31
8	39	114	292	244	476	257	1,590	1,610	956	139	46	31
9	48	113	298	865	448	252	1,460	1,680	866	152	38	29
10	118	119	211	878	969	249	1,510	1,580	807	217	34	27
11	130	121	262	605	1,703	267	1,329	1,500	821	184	31	26
12	79	176	155	625	1,373	289	1,160	1,560	720	158	29	26
13	60	183	132	317	1,350	286	1,250	1,713	727	140	27	26
14	60	148	112	316	1,310	262	1,710	1,503	668	125	26	24
15	56	156	110	366	1,372	273	1,990	1,320	596	113	26	24
16	53	136	125	355	982	215	900	1,630	533	105	26	25
17	68	126	105	1,273	887	220	1,030	1,160	486	98	27	25
18	56	147	87	2,532	776	196	954	1,000	470	92	27	25
19	90	136	98	2,295	712	218	873	905	495	89	27	25
20	86	133	112	2,332	633	294	879	817	429	88	26	25
21	83	117	117	1,497	537	327	1,030	717	600	84	26	27
22	81	69	92	[illegible]	563	390	1,260	655	424	77	26	32
23	79	117	100	896	521	731	1,110	649	379	72	31	28
24	91	195	112	757	510	1,200	1,190	666	365	68	34	26
25	90	373	92	[illegible]	[illegible]	1,160	1,127	776	342	66	30	26
26	87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
[illegible]

[illegible]

13320000 Catherine Creek near Union, Oreg.

LOCATION.--Lat 45°09'20", long 117°46'26", in NW¼SE¼ sec.2, T.5 S., R.40 E., Union County, on right bank 3.0 miles downstream from Little Catherine Creek, 5.5 miles southeast of Union, and at mile 25.4.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to September 1919, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 3,081.76 ft above mean sea level (Oregon State Highway Department bench mark). Prior to Nov. 28, 1938, nonrecording gage at several sites within 1.8 miles of present site at various datums. Nov. 28, 1938, to May 16, 1939, water-stage recorder at site 400 ft downstream at datum 4.29 ft lower.

AVERAGE DISCHARGE.--48 years (1911-12, 1918-19, 1925-71), 118 cfs (85,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 930 cfs May 28 (gage height, 3.48 ft); minimum, 25 cfs Oct. 27, but may have been less during period of ice effect.
Period of record: Maximum discharge, 1,740 cfs May 27, 1948 (gage height, 4.57 ft); minimum, 6.5 cfs Feb. 4, 1955, result of freezeup; minimum daily, 8 cfs Nov. 7, 1925.

REMARKS.--Records excellent except those for December and January, which are fair. No regulation. Several small diversions for irrigation above station. Since 1937, diversion to Big Creek in Powder River basin provides a small part of the water used for irrigation in that basin

REVISIONS (WATER YEARS).--WSP 1397: 1912-13, 1919, 1926, 1928-33, 1937, 1939, 1940(M), 1941-43, 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	41	58	35	195	71	122	370	482	216	56	37
2	28	41	55	33	187	77	118	470	426	219	55	43
3	27	40	52	33	162	82	118	600	422	210	54	50
4	27	39	54	30	143	67	124	750	418	197	52	38
5	31	47	54	29	124	64	143	720	406	192	50	36
6	32	49	56	35	108	60	184	670	410	179	51	35
7	30	52	61	40	100	59	308	665	434	167	50	35
8	29	52	64	99	95	56	278	715	464	160	48	33
9	55	52	64	130	90	56	266	730	459	162	46	32
10	70	49	56	120	167	58	272	710	438	165	43	31
11	45	58	59	110	192	60	248	710	418	150	42	31
12	39	59	55	100	197	68	221	745	426	138	41	30
13	35	52	56	100	197	66	203	855	495	132	41	29
14	33	48	52	96	190	63	209	730	455	130	40	29
15	33	47	52	110	184	61	248	660	410	126	39	29
16	32	47	52	110	167	58	239	625	390	123	39	29
17	31	45	62	130	155	58	230	510	349	119	38	29
18	31	47	55	141	143	56	206	420	342	113	37	29
19	36	45	65	190	130	56	210	388	332	108	37	29
20	39	45	65	206	110	55	230	360	339	110	36	32
21	39	37	65	162	112	56	240	311	360	99	36	29
22	41	46	58	135	104	60	243	305	390	92	39	28
23	46	79	67	116	97	70	242	320	402	86	41	28
24	47	71	63	103	95	96	233	356	360	81	38	28
25	41	75	65	96	88	171	220	420	430	76	36	29
26	39	66	62	96	86	163	260	550	376	73	36	33
27	33	66	65	92	82	157	267	705	306	68	35	36
28	39	66	66	90	77	146	265	895	267	66	35	31
29	40	59	66	90	-------	135	290	810	236	63	36	42
30	39	60	66	112	-------	137	320	675	219	60	35	36
31	43	-------	90	160	-------	150	-------	570	-------	[illegible]	35	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

PEAK DISCHARGE [illegible]

13323500 Grande Ronde River near Elgin, Oreg.

LOCATION.--Lat 45°30'45", long 117°55'35", in NW¼NW¼ sec.3, T.1 S., R.39 E., Union County, on right bank 700 ft upstream from abandoned highway bridge, 1.5 miles downstream from Willow Creek, 3.6 mile south of Elgin, and at mile 104.2.

DRAINAGE AREA.--1,250 sq mi, approximately.

PERIOD OF RECORD.--August 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,660.31 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 646 cfs (468,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,380 cfs Jan. 20 (gage height, 9.47 ft); minimum, 4.1 cfs Aug. 29, 30.
Period of record: Maximum discharge, 6,480 cfs Feb. 2, 1965 (gage height, 13.79 ft); minimum, 1.7 cfs Aug. 28, 1970.
Flood in May 1948 reached a stage of 2,672.9 ft on Corps of Engineers gage at bridge 700 ft downstream (discharge, 5,690 cfs, result of discharge measurement).
Floods in 1894 and 1917 were much higher, based on Corps of Engineers flood profiles.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	180	438	200	2,090	748	1,570	1,590	1,880	632	51	8.2
2	95	174	393	160	2,100	674	1,450	1,700	1,880	569	45	17
3	92	166	388	150	1,960	625	1,370	1,950	1,880	527	36	21
4	90	163	355	140	1,760	704	1,310	2,260	2,130	497	34	23
5	87	162	344	130	1,590	673	1,300	2,490	2,200	464	43	26
6	89	168	353	140	1,360	614	1,390	2,560	2,140	428	40	31
7	91	192	389	170	1,120	582	1,750	2,590	2,040	385	39	37
8	96	206	445	239	1,010	597	2,170	2,580	1,940	335	39	33
9	102	212	506	596	950	606	2,200	2,610	1,830	300	41	30
10	113	220	500	1,400	1,200	625	2,200	2,610	1,730	320	37	34
11	174	228	436	1,440	1,710	700	2,200	2,560	1,690	348	34	39
12	180	262	415	1,130	1,870	735	2,070	2,530	1,620	310	31	36
13	157	300	342	854	1,830	770	1,900	2,600	1,590	265	27	31
14	142	298	280	790	1,810	737	1,740	2,660	1,560	236	24	34
15	136	268	309	721	1,900	713	1,670	2,570	1,480	222	24	39
16	126	260	340	873	1,820	690	1,650	2,520	1,410	210	23	40
17	123	252	320	1,240	1,720	631	1,650	2,460	1,320	194	24	37
18	123	251	280	1,870	1,590	613	1,630	2,290	1,240	152	24	32
19	133	271	230	3,070	1,480	578	1,550	2,080	1,210	119	20	37
20	154	271	220	3,290	1,360	596	1,490	1,920	1,150	117	17	39
21	155	264	240	3,220	1,220	638	1,490	1,730	1,060	114	14	38
22	146	239	260	2,720	1,140	676	1,550	1,530	1,020	108	14	36
23	164	265	240	2,290	1,080	867	1,570	1,390	996	100	13	36
24	173	256	260	1,970	1,010	1,380	1,630	1,300	952	95	9.8	37
25	188	433	250	1,790	1,020	1,690	1,640	1,290	912	91	7.8	37
26	203	508	220	1,740	924	1,700	1,610	1,440	912	93	8.6	42
27	198	483	210	1,790	862	1,870	1,570	1,670	880	86	8.6	47
28	182	476	250	1,610	807	1,800	1,550	1,800	844	74	7.8	47
29	178	496	250	1,470	------	1,660	1,590	1,860	780	68	5.1	48
30	180	448	270	1,410	------	1,640	1,590	1,890	704	68	4.9	97
31	176	------	295	1,780	------	1,680	------	1,870	------	63	4.9	------
TOTAL	4,349	8,232	9,997	40,313	40,293	28,812	49,962	64,900	42,980	7,588	751.9	1,089.2
MEAN	140	274	322	1,300	1,439	929	1,665	2,094	1,433	245	24.3	36.3
MAX	203	508	506	3,290	2,100	1,870	2,200	2,660	2,200	632	51	97
MIN	87	162	210	130	807	578	1,300	1,290	704	63	4.9	8.2
AC-FT	8,630	16,320	19,830	79,960	79,920	57,150	99,100	128,700	85,250	15,050	1,490	2,160

CAL YR 1970 TOTAL 250,380.2 MEAN 686 MAX 3,570 MIN 2.0 AC-FT 496,600
WTR YR 1971 TOTAL 299,250.7 MEAN 820 MAX 3,290 MIN 4.9 AC-FT 593,600

13325000 East Fork Wallowa River near Joseph, Oreg.

LOCATION.--Lat 45°16'20", long 117°12'35", in NE¼ sec.29, T.3 S., R.45 E., Wallowa County, on left bank 0.2 mile upstream from confluence with West Fork, 1 mile upstream from Wallowa Lake, 5.5 miles south of Joseph, and at mile 55.0.

DRAINAGE AREA.--10.3 sq mi.

PERIOD OF RECORD.--July 1924 to current year. Prior to October 1952, records published separately as East Fork Wallowa River near Joseph and Wallowa Falls powerplant tailrace near Joseph.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,517.69 ft above mean sea level (Pacific Power & Light Co. bench mark). Prior to Apr. 8, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years, 21.6 cfs (28.48 inches per year, 15,650 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 154 cfs June 25; minimum daily, 9.1 cfs Jan. 14.
Period of record: Maximum discharge, 450 cfs July 25, 1937 (no flow in powerplant tailrace), from rating curve extended above 80 cfs; minimum daily, 6.6 cfs Feb. 13, 1927.

REMARKS.--Records good except those for December and January, which are poor. All records presented herein include flow in Wallowa Falls powerplant tailrace of Pacific Power & Light Co. Most of low flow is diverted at dam 1.5 miles upstream into a conduit 1.0 mile above Wallowa Falls powerhouse and discharged into West Fork 0.4 mile below powerhouse.

REVISIONS (WATER YEARS).--WSP 1247: 1931, 1937(M), 1948-49, records for river station; 1948, records for tailrace station. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	16	14	14	12	12	15	44	68	41	22
2	16	14	16	13	13	11	11	18	40	69	39	22
3	16	14	13	13	13	12	11	21	38	65	39	22
4	16	14	13	13	13	12	11	24	38	64	37	21
5	16	15	14	13	12	12	11	23	39	65	36	20
6	16	15	16	14	13	11	12	23	42	66	35	20
7	16	15	16	14	13	12	12	25	50	63	35	20
8	16	14	17	14	12	12	12	30	63	61	34	20
9	17	15	16	14	13	12	12	31	63	65	32	19
10	17	14	13	14	15	12	12	32	64	75	31	19
11	17	15	13	13	13	12	12	33	67	73	30	19
12	17	15	13	11	13	12	12	37	74	70	29	19
13	16	14	13	13	13	12	12	44	87	68	28	19
14	16	14	13	9.1	13	12	12	40	95	68	27	19
15	16	14	14	13	13	12	13	40	95	68	26	19
16	16	14	15	14	13	12	12	40	94	69	26	19
17	16	14	14	14	13	12	12	35	86	72	25	19
18	16	14	13	15	13	12	12	32	89	73	25	18
19	16	14	12	17	13	12	12	31	85	70	24	18
20	17	13	12	16	13	11	13	29	86	71	24	19
21	17	13	14	15	12	11	13	28	92	69	23	19
22	17	12	13	15	13	11	13	27	102	66	24	18
23	17	16	14	13	12	11	13	29	125	64	24	18
24	17	20	14	13	12	11	13	32	114	60	24	18
25	16	17	14	13	12	11	13	35	138	57	22	18
26	16	16	14	13	12	11	13	42	136	52	19	18
27	13	15	14	12	12	11	13	50	117	49	21	19
28	12	14	14	12	12	11	13	57	103	46	22	19
29	15	16	14	12	---	11	13	68	88	44	23	20
30	15	16	14	14	---	11	14	55	72	42	23	19
31	15	---	14	14	---	11	---	67	---	41	23	---
TOTAL	495	441	435	417.1	358	358	369	1,093	2,426	1,953	867	579
MEAN	16.0	14.7	14.0	13.5	12.8	11.5	12.3	35.3	80.9	63.0	28.0	19.3
MAX	17	20	17	17	15	12	14	68	138	75	41	22
MIN	12	12	12	9.1	12	11	11	15	38	41	19	18
CFSM	1.55	1.43	1.36	1.31	1.24	1.12	1.19	3.42	7.85	6.12	2.72	1.87
IN.	1.79	1.59	1.57	1.51	1.29	1.29	1.33	3.95	8.76	7.05	3.13	2.09
AC-FT	982	875	863	827	710	710	732	2,170	4,810	3,870	1,720	1,150

CAL YR 1970 TOTAL 7,697.0 MEAN 21.1 MAX 140 MIN 9.2 CFSM 2.05 IN 27.80 AC-FT 15,270
WTR YR 1971 TOTAL 9,791.1 MEAN 26.8 MAX 138 MIN 9.1 CFSM 2.60 IN 35.36 AC-FT 19,420

13326000 Wallowa Lake near Joseph, Oreg.

LOCATION.--Lat 45°20'10", long 117°13'15", in NW¼ sec.5, T.3 S., R.45 E., Wallowa County, at spillway near right end of Wallowa Lake dam on Wallowa River, 1.3 miles southeast of Joseph, and at mile 50.2.

DRAINAGE AREA.--50.8 sq mi.

PERIOD OF RECORD.--November 1903 to July 1906 (gage height only), January 1912 to March 1914, May to September 1915 (gage heights and change in contents only), October 1925 to June 1926, December 1926 to current year. Monthend contents only for some periods, published in WSP 1317. November 1903 to March 1905 published as Wallowa River at Joseph. Change in contents for January 1912 to March 1914 and May to September 1915 published with records for Wallowa River at Joseph.

GAGE.--Water-stage recorder. Datum of gage is 4,355.66 ft above mean sea level. Prior to Oct. 1, 1925, nonrecording gage at several sites within 0.5 mile of present site at different datums. Oct. 1, 1925, to June 30, 1926, Dec. 1, 1926, to May 18, 1961, nonrecording gage near left end of dam at same datum.

EXTREMES.--Current year: Maximum contents, 43,970 acre-ft July 18 (gage height, 27.54 ft); minimum, 17,940 acre-ft Oct. 1 (gage height, 11.52 ft).

Period of record: Maximum contents observed, 47,830 acre-ft June 5-7, 1957 (gage height, 29.85 ft); minimum observed, 4,790 acre-ft Oct. 10, 1929 (gage height, 3.10 ft).

REMARKS.--Records excellent. Reservoir is formed by concrete dam. Capacity, 42,750 acre-ft between gage heights 0.0 (sill of outlet gates) and 26.8 ft (spillway crest). About 5,300 acre-ft dead storage above outlet gates, because channel is about 3.4 ft above outlet gates. Dead storage below outlet gates not known. Records are based on capacities above outlet gates.

REVISIONS.--WSP 1737: Drainage area.

MONTHEND GAGE HEIGHT AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	11.51	17,930	-
Oct. 31	12.44	19,400	+1,470
Nov. 30	13.64	21,300	+1,900
Dec. 31	14.80	23,160	+1,860
CAL YR 1970	-	-	+7,550
Jan. 31	15.94	24,980	+1,820
Feb. 28	17.14	26,910	+1,930
Mar. 31	17.93	28,190	+1,280
Apr. 30	18.56	29,210	+1,020
May 31	19.02	29,950	+740
June 30	25.52	40,620	+10,670
July 31	25.82	41,120	+500
Aug. 31	16.53	25,940	-15,180
Sept.30	15.76	24,660	-1,280
WTR YR 1971	-	-	+6,730

13327500 Wallowa River at Joseph, Oreg.

LOCATION.--Lat 45°20'15", long 117°13'35", in NW¼ sec.5, T.3 S., R.45 E., Wallowa County, on left bank 0.2 mile downstream from Wallowa Lake dam, 1.1 miles south of Joseph, and at mile 50.0.

DRAINAGE AREA.--50.9 sq mi.

PERIOD OF RECORD.--November 1903 to August 1907, June 1908 to March 1914, May to September 1915, December 1926 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "near Joseph" 1911.

GAGE.--Water-stage recorder. Datum of gage is 4,326.86 ft above mean sea level. Nov. 12, 1903, to Sept. 25, 1915, nonrecording gage at several sites at lake outlet or near present site at different datums.

AVERAGE DISCHARGE.--44 years (1927-71), 133 cfs (35.48 inches per year, 96,360 acre-ft per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 621 cfs Aug. 3 (gage height, 3.89 ft); minimum, 10 cfs Apr. 22.
Period of record: Maximum discharge, 1,550 cfs June 10, 1969 (gage height, 5.15 ft); no flow at times in some years.

REMARKS.--Records excellent. Monthly discharge adjusted for storage in Wallowa Lake (see station 13326000) and diversion from Wallowa Lake by Silver Lake ditch. Silver Lake ditch diverts at Wallowa Lake dam for irrigation northeast of Joseph. City of Joseph diverts less than 1.0 cfs from Wallowa Lake for municipal use.

REVISIONS (WATER YEARS).--WSP 1397: 1906. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	29	29	27	28	26	30	77	477	320	562	132
2	38	29	30	27	28	26	31	92	452	312	590	137
3	41	28	30	29	28	26	31	116	447	332	611	137
4	42	28	30	31	28	26	31	152	414	339	611	137
5	43	27	30	31	28	26	31	170	391	370	609	136
6	43	27	30	31	28	26	30	206	377	397	568	107
7	43	28	30	31	27	26	30	218	366	400	534	82
8	43	31	30	31	27	26	30	245	361	397	517	76
9	43	33	30	31	27	26	29	279	339	373	436	76
10	43	33	30	31	26	26	29	337	336	398	527	75
11	43	33	30	31	26	26	32	362	333	407	541	74
12	39	31	30	31	25	29	34	407	333	407	495	75
13	37	30	30	31	25	31	34	455	344	378	441	75
14	37	29	30	31	27	31	39	482	340	339	425	74
15	36	29	29	31	27	31	44	488	311	321	409	73
16	36	28	29	32	27	31	39	488	305	340	401	73
17	36	27	28	31	27	31	38	450	320	444	397	73
18	37	27	28	30	26	31	42	437	343	531	415	73
19	36	27	28	30	26	31	46	397	352	537	426	73
20	33	28	28	30	26	32	58	382	354	529	390	73
21	33	28	27	30	26	32	96	346	371	531	364	73
22	32	31	27	29	26	31	49	299	429	559	330	73
23	32	32	27	29	26	31	68	334	478	550	267	73
24	33	32	27	30	26	31	67	378	509	540	205	73
25	33	32	27	29	26	31	68	432	498	530	180	73
26	33	31	27	29	26	31	67	446	475	518	153	64
27	33	30	27	28	26	30	67	467	447	531	136	60
28	33	29	27	28	26	31	67	477	368	533	150	60
29	31	29	27	28	------	31	67	509	348	562	154	60
30	29	29	27	28	------	31	67	523	347	560	145	60
31	29	------	27	28	------	31	------	523	------	565	122	------
TOTAL	1,138	885	886	924	745	905	1,391	10,974	11,565	13,850	12,111	2,500
MEAN	36.7	29.5	28.6	29.8	26.6	29.2	46.4	354	386	447	391	83.3
MAX	43	33	30	32	28	32	96	523	509	565	611	137
MIN	29	27	27	27	25	26	29	77	305	312	122	60
AC-FT	2,260	1,760	1,760	1,830	1,480	1,800	2,760	21,770	22,940	27,470	24,020	4,960
MEAN†	65.2	66.5	64.6	64.6	65.5	53.2	66.9	372	612	499	214	78.8
CFSM†	1.28	1.31	1.27	1.27	1.29	1.05	1.31	7.31	12.0	9.80	4.20	1.55
IN.†	1.48	1.46	1.46	1.46	1.34	1.21	1.47	8.43	13.4	11.3	4.85	1.73
AC-FT†	4,010	3,960	3,970	3,970	3,640	3,270	3,980	22,870	36,410	30,670	13,150	4,690

CAL YR 1970 TOTAL 47,620 MEAN 130 MAX 737 MIN 11 AC-FT 94,460 MEAN† 160 CFSM† 3.14 IN.† 42.72 AC-FT† 115,930
WTR YR 1971 TOTAL 57,874 MEAN 159 MAX 611 MIN 25 AC-FT 114,800 MEAN† 186 CFSM† 3.65 IN.† 49.60 AC-FT† 134,600

† Adjusted for change in contents of Wallowa Lake and diversion by Silver Lake ditch.

13329500 Hurricane Creek near Joseph, Oreg.

LOCATION.--Lat 45°20'15", long 117°17'30", in NE¼ sec.3, T.3 S., R.44 E., Wallowa County, on left bank 350 ft upstream from intake of Moonshine ditch, 3.5 miles southwest of Joseph, and at mile 7.5.

DRAINAGE AREA.--29.6 sq mi.

PERIOD OF RECORD.--April to September 1915, April 1924 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (by barometer). Apr. 27 to Sept. 3, 1915, nonrecording gage at site 250 ft downstream at different datum. Apr. 23, 1924, to June 13, 1933, water-stage recorder at site 150 ft downstream at different datum.

AVERAGE DISCHARGE.--47 years, 74.3 cfs (34.09 inches per year, 53,830 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 820 cfs June 25 (gage height, 4.70 ft); minimum, 11 cfs Jan. 17 but may have been less during period of ice effect.

Period of record: Maximum discharge, 1,110 cfs June 9, 1948 (gage height, 3.55 ft); minimum, 2.8 cfs Mar. 2, 1955, result of ice jam upstream; minimum daily, 6.0 cfs Jan. 6, Apr. 13, 1945.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1397: 1915, 1925-28. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	31	35	27	41	31	24	48	297	265	144	58
2	35	30	35	25	40	30	25	72	241	273	144	58
3	34	30	34	26	37	31	25	105	218	261	138	55
4	34	30	32	25	37	32	25	130	215	269	129	52
5	35	31	32	24	34	30	26	124	222	273	121	49
6	34	32	36	25	29	29	27	119	245	269	126	47
7	34	32	37	26	31	30	31	132	317	249	123	46
8	34	31	34	26	33	31	29	172	400	261	113	44
9	36	33	34	27	35	29	29	194	395	301	105	43
10	37	31	32	28	49	29	30	206	375	297	98	43
11	36	33	33	28	45	29	29	229	375	261	93	42
12	36	36	27	28	43	29	28	279	405	241	87	42
13	35	32	27	28	43	28	29	357	470	241	85	40
14	34	32	28	28	43	27	30	265	440	249	82	40
15	33	33	30	28	42	27	32	241	400	261	78	39
16	33	35	31	28	40	27	32	241	390	293	76	39
17	33	33	31	29	39	26	32	197	360	297	72	38
18	32	33	29	33	38	26	32	166	385	269	70	38
19	32	32	27	37	37	26	31	150	390	253	67	37
20	33	31	27	36	36	26	33	138	425	281	65	39
21	32	28	28	32	34	26	33	126	465	269	63	37
22	33	24	26	30	35	26	33	118	495	241	65	36
23	34	32	26	32	34	26	33	123	495	225	63	34
24	32	63	27	31	34	26	33	159	405	208	58	34
25	32	53	26	31	34	26	33	222	545	194	56	34
26	32	44	25	30	32	26	32	317	405	183	55	36
27	29	42	25	30	32	26	32	455	321	176	55	34
28	32	40	26	29	32	25	33	560	269	170	55	34
29	33	39	27	29	------	25	35	560	229	159	63	34
30	30	38	29	35	------	26	38	470	229	153	61	33
31	31	------	29	41	------	25	------	365	------	147	58	------
TOTAL	1,035	1,044	925	912	1,039	856	916	7,056	10,823	7,489	2,668	1,235
MEAN	33.4	34.8	29.8	29.4	37.1	27.6	30.5	228	361	242	86.1	41.2
MAX	37	63	37	41	49	32	38	560	545	301	144	58
MIN	29	24	25	24	29	25	24	48	215	147	55	33
CFSM	1.13	1.18	1.01	.99	1.25	.93	1.03	7.70	12.2	8.18	2.91	1.39
IN.	1.30	1.31	1.16	1.15	1.31	1.08	1.15	8.87	13.60	9.41	3.35	1.55
AC-FT	2,050	2,070	1,830	1,810	2,060	1,700	1,810	14,000	21,470	14,850	5,290	2,450

CAL YR 1970 TOTAL 31,799 MEAN 87.1 MAX 810 MIN 16 CFSM 2.95 IN 40.06 AC-FT 63,190
WTR YR 1971 TOTAL 35,996 MEAN 98.6 MAX 560 MIN 24 CFSM 3.33 IN 45.24 AC-FT 71,400

PEAK DISCHARGE (BASE, 400 CFS).--May 28 (2000) 715 cfs (4.33 ft); June 25 (1330) 820 cfs (4.70 ft).

13330000 Lostine River near Lostine, Oreg.

LOCATION.--Lat 45°26'20", long 117°25'35", in NW¼ sec.34, T.1 S., R.43 E., Wallowa County, on left bank 3.5 miles south of Lostine and at mile 10.0.

DRAINAGE AREA.--70.9 sq mi.

PERIOD OF RECORD.--August 1912 to March 1914, April to September 1915, July 1925 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 3,650 ft (by barometer). See WSP 1317 or 1737 for history of changes prior to Dec. 16, 1953.

AVERAGE DISCHARGE.--47 years (1912-13, 1925-71), 195 cfs (141,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,290 cfs June 25 (gage height, 7.31 ft); minimum, 29 cfs Nov. 22.
Period of record: Maximum discharge observed, 2,540 cfs May 27, 1913 (gage height, 6.60 ft, site and datum then in use); minimum, 7.5 cfs Mar. 2, 1966, result of freezeup; minimum daily, 10 cfs Nov. 28-30, 1936.

REMARKS.--Records excellent. Minam Lake Reservoir (capacity, 440 acre-ft), has stored and diverted flow from Minam River since 1917 for irrigation in Lostine River basin. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1397: 1913, 1942. WSP 1737: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	53	79	50	151	77	56	163	690	725	261	68
2	54	52	81	42	137	72	56	262	577	805	254	81
3	53	52	78	44	125	75	55	403	524	767	239	73
4	51	52	74	42	118	72	56	497	513	771	217	66
5	53	54	76	41	108	68	58	462	524	787	199	58
6	54	55	76	45	114	64	66	436	576	757	199	55
7	52	55	83	50	119	67	88	485	718	684	192	54
8	52	54	77	54	95	64	84	599	929	691	170	51
9	60	56	75	68	93	63	84	682	967	810	153	49
10	77	52	68	61	161	64	89	709	917	944	144	48
11	67	57	72	58	161	64	88	768	912	776	130	46
12	71	61	62	55	148	65	85	921	1,040	687	117	45
13	64	55	56	52	148	62	82	1,200	1,380	681	109	44
14	61	55	61	53	145	59	85	922	1,260	710	105	43
15	59	57	64	63	141	59	96	768	1,090	738	99	43
16	58	59	63	69	112	59	96	761	1,020	823	93	42
17	56	57	57	109	123	56	96	585	933	836	88	42
18	55	57	54	90	117	58	92	486	1,010	748	84	41
19	56	55	50	111	112	56	89	431	1,090	695	79	41
20	58	52	50	129	109	56	94	381	1,160	762	76	44
21	58	45	52	107	100	56	99	339	1,320	663	73	43
22	55	38	67	95	97	55	96	310	1,540	586	74	41
23	59	58	67	92	92	58	99	329	1,970	516	77	42
24	57	125	69	85	93	62	98	418	1,290	603	68	38
25	55	126	66	82	86	58	96	585	1,770	622	64	38
26	56	128	63	82	83	61	92	861	1,590	588	61	40
27	50	97	63	78	81	58	92	1,360	1,060	566	59	42
28	53	92	65	75	81	57	96	1,990	788	519	58	41
29	53	86	68	231	------	56	138	1,980	629	511	59	42
30	52	88	58	170	------	58	122	1,170	617	296	60	43
31	58	------	53	153	------	57	------	866	------	277	64	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	117	[illegible]	[illegible]	687	[illegible]	637	[illegible]	[illegible]
MAX	77	128	83	231	161	77	138	1,990	1,970	944	261	81
MIN	50	38	50	41	81	56	55	163	513	277	58	38
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

13330500 Bear Creek near Wallowa, Oreg.

LOCATION.--Lat 45°31'37", long 117°33'05", in NW¼NE¼ sec.34, T.1 N., R.42 E., Wallowa County, on right bank 30 ft downstream from road bridge, 3 miles southwest of Wallowa, and at mile 4.4.

DRAINAGE AREA.--68 sq mi, approximately.

PERIOD OF RECORD.--April to September 1915, April 1924 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft. Apr. 13 to Sept. 16, 1915, nonrecording gage at site 1 mile upstream at different datum. Apr. 22, 1924, to Nov. 2, 1931, water-stage recorder at site 1.5 miles upstream at different datum.

AVERAGE DISCHARGE.--47 years (1924-71) 113 cfs (81,870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,290 cfs May 28 (gage height, 3.34 ft); minimum, 13 cfs Sept. 19, 20, 22-25.
Period of record: Maximum discharge, 1,620 cfs Apr. 22, 1936 (gage height, 3.82 ft, from floodmark), from rating curve extended above 930 cfs; minimum daily, 3 cfs Jan. 20, Feb. 1, 1937.

REMARKS.--Records good. No regulation. Diversions for irrigation above station. Water for irrigation in Lostine River basin diverted from Little Bear Creek, a tributary above station, in sec.32, T.1 S., R.43 E.

REVISIONS (WATER YEARS).--WSP 1397: 1915, 1927, 1929-30, 1932, 1936-40, 1945, 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	35	63	37	197	63	81	189	400	330	40	20
2	23	36	60	35	179	56	78	330	351	351	38	24
3	22	35	55	37	155	58	72	512	351	306	36	21
4	22	34	50	35	140	54	69	560	358	294	34	20
5	23	35	51	34	123	52	72	520	372	282	31	19
6	23	36	47	39	106	47	93	480	400	257	30	18
7	22	34	54	45	102	47	148	472	496	225	30	18
8	22	33	57	50	89	45	145	569	587	221	28	18
9	29	36	57	60	83	42	143	650	560	252	26	17
10	50	33	90	58	140	44	145	632	504	282	24	17
11	60	38	54	52	158	45	138	605	496	230	23	16
12	42	45	39	49	161	48	125	710	560	235	23	16
13	38	40	33	50	179	50	118	849	730	197	22	16
14	35	38	36	52	167	48	120	670	652	193	21	15
15	33	38	46	58	170	47	135	569	560	185	21	15
16	33	39	52	63	155	44	130	536	512	189	21	14
17	31	38	45	100	145	42	128	424	444	182	20	14
18	30	39	37	118	135	38	118	344	496	158	19	14
19	30	39	39	156	123	39	108	306	536	163	19	13
20	33	38	34	213	111	39	116	297	569	165	18	13
21	32	36	39	176	102	42	110	280	601	129	18	15
22	32	38	36	143	96	48	116	215	720	111	19	13
23	36	91	37	125	89	58	113	230	670	99	19	13
24	36	102	38	130	89	80	111	286	520	89	18	13
25	34	123	39	96	81	85	106	472	750	76	18	13
26	32	104	38	87	76	98	106	660	630	67	17	15
27	34	92	38	83	71	100	104	966	480	63	17	15
28	30	83	43	80	67	91	119	1,090	372	93	16	14
29	33	74	63	76	-------	83	133	982	296	91	16	14
30	30	71	60	180	-------	87	140	690	288	67	16	15
31	39	-------	60	170	-------	87	-------	680	-------	66	17	-------
TOTAL	994	1,531	1,507	2,587	3,673	1,617	3,652	16,617	15,335	5,652	715	480
MEAN	32.1	51.0	48.6	83.5	131	52.2	122	536	511	182	23.1	16.0
MAX	60	123	90	213	197	100	148	1,090	750	351	40	24
MIN	22	33	33	34	67	38	69	189	288	63	16	13
AC-FT	1,970	3,040	2,990	5,130	7,290	3,210	7,240	32,960	30,420	11,210	1,420	952

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, [illegible] CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

13331500 Minam River at Minam, Oreg.
(Hydrologic bench-mark station)

LOCATION.--Lat 45°37'12", long 117°43'32", in SW¼SW¼ sec.29, T.2 N., R.41 E., Wallowa County, on left bank 2.3 miles downstream from Squaw Creek, 0.3 mile west of Minam, and at mile 0.3.

DRAINAGE AREA.--240 sq mi, approximately.

PERIOD OF RECORD.--June 1912 to March 1914, September 1965 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 2,540.48 ft above mean sea level. June 1912 to March 1914, nonrecording gage at approximately same site at different datum.

AVERAGE DISCHARGE.--7 years, 482 cfs (27.27 inches per year, 349,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,650 cfs May 29 (gage height, 5.78 ft); minimum, 65 cfs Dec. 20, but may have been less during period of ice effect in January.

Period of record: Maximum discharge, 4,910 cfs June 6, 1970 (gage height, 5.91 ft); maximum gage height, 7.3 ft May 28, 1913, datum then in use; minimum discharge, 12 cfs Dec. 15, 1967, result of freezeup.

REMARKS.--Records excellent. No regulation or diversion above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	140	244	125	646	274	353	728	1,840	1,230	345	129
2	98	140	243	106	568	236	335	1,060	1,590	1,340	329	149
3	95	138	228	100	485	274	310	1,490	1,490	1,260	314	157
4	93	136	218	90	435	253	303	1,830	1,500	1,240	294	133
5	95	138	209	88	388	239	322	1,680	1,500	1,230	275	117
6	110	158	218	100	319	210	379	1,630	1,540	1,170	257	108
7	100	149	253	130	315	228	652	1,840	1,780	1,060	253	105
8	98	149	286	173	319	216	591	2,120	2,110	1,030	235	103
9	119	158	288	446	304	207	531	2,250	2,190	1,120	216	98
10	210	156	237	409	442	215	565	2,210	2,050	1,230	203	95
11	158	165	248	310	546	240	517	2,260	1,950	1,090	191	92
12	147	236	197	250	518	274	467	2,600	2,140	975	180	90
13	134	225	173	204	553	285	438	3,280	2,730	930	171	88
14	125	198	189	191	543	264	446	2,620	2,520	948	163	86
15	119	192	221	198	550	255	531	2,240	2,230	966	158	85
16	116	187	207	263	520	226	509	2,220	2,050	1,030	152	85
17	113	190	175	711	490	220	497	1,770	1,860	1,050	147	83
18	113	187	126	726	455	197	454	1,490	1,890	975	142	83
19	118	185	80	865	430	197	419	1,370	2,010	864	137	82
20	122	184	120	1,040	393	206	439	1,220	2,060	875	131	85
21	144	172	140	677	363	217	455	1,100	2,400	843	127	86
22	138	129	100	498	363	247	461	1,040	2,740	758	129	82
23	143	161	120	423	343	365	478	1,060	2,890	669	144	79
24	162	312	130	380	343	519	459	1,230	2,390	601	128	77
25	152	456	120	355	327	491	442	1,570	3,090	543	121	78
26	143	369	110	375	307	504	449	2,150	2,740	494	115	88
27	121	319	130	363	299	500	492	3,410	1,920	460	111	94
28	121	290	150	355	284	419	523	3,960	1,490	432	109	91
29	134	269	210	335	------	370	602	3,900	1,280	406	107	100
30	136	270	165	371	------	395	636	2,920	1,160	385	119	97
31	140	------	162	610	------	392	------	2,250	------	366	113	------
TOTAL	3,917	6,158	5,697	11,267	11,848	9,135	14,055	62,498	61,130	27,570	5,616	2,925
MEAN	126	205	184	363	423	295	469	2,016	2,038	889	181	97.5
MAX	210	456	288	1,040	646	519	652	3,960	3,090	1,340	345	157
MIN	93	129	80	88	284	197	303	728	1,160	366	107	77
CFSM	.53	.85	.77	1.51	1.76	1.23	1.95	8.40	8.49	3.70	.75	.41
IN.	.61	.95	.88	1.75	1.84	1.42	2.18	9.69	9.48	4.27	.87	.45
AC-FT	7,770	12,210	11,300	22,350	23,500	18,120	27,880	124,000	121,300	54,690	11,140	5,800

CAL YR 1970 TOTAL 198,258 MEAN 543 MAX 4,270 MIN 60 CFSM 2.26 IN 30.73 AC-FT 393,200
WTR YR 1971 TOTAL 221,816 MEAN 608 MAX 3,960 MIN 77 CFSM 2.53 IN 34.38 AC-FT 440,000

PEAK DISCHARGE (BASE, 1,450 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-13	0800	5.16	3,510	6-13	0630	4.76	2,860
5-29	0100	5.78	4,650	6-25	2030	5.38	3,900

13332500 Grande Ronde River at Rondowa, Oreg.

LOCATION.--Lat 45°43'36", long 117°46'59", in SW¼NW¼ sec.23, T.3 N., R.40 E., Wallowa County, on right bank at Rondowa, 500 ft downstream from Wallowa River, 13 miles northeast of Elgin, and at mile 81.4.

DRAINAGE AREA.--2,555 sq mi.

PERIOD OF RECORD.--October 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,281.87 ft above mean sea level.

AVERAGE DISCHARGE.--45 years, 2,110 cfs (1,529,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,400 cfs May 13 (gage height, 6.89 ft); minimum, 475 cfs Sept. 19.
Period of record: Maximum discharge, 24,700 cfs Jan. 30, 1965 (gage height, 10.93 ft); minimum, 225 cfs Dec. 19, 1935.

REMARKS.--Records excellent. Flow slightly regulated by Wallowa Lake (see station 13326000) and small reservoirs. Diversions for irrigation above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation in Wallowa Valley.

REVISIONS (WATER YEARS).--WSP 1093: 1928-29, 1932-33, 1936, 1938, 1939(M), 1943. WSP 1397: 1927. WSP 1447: 1927.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	800	1,450	870	5,000	1,910	3,460	4,360	6,640	3,840	960	684
2	652	790	1,380	628	4,700	1,700	3,260	5,200	6,320	4,080	950	830
3	644	772	1,320	600	4,220	1,750	3,100	6,390	6,210	3,820	940	830
4	628	772	1,250	580	3,820	1,760	3,030	7,460	6,410	3,710	890	790
5	636	800	1,200	580	3,420	1,700	3,100	7,480	6,390	3,670	860	745
6	668	850	1,230	700	2,920	1,560	3,440	7,340	6,350	3,580	850	727
7	652	850	1,440	763	2,580	1,580	4,740	7,680	6,640	3,370	870	727
8	652	870	1,580	1,000	2,400	1,560	4,880	8,380	7,240	3,150	860	700
9	763	900	1,590	3,390	2,260	1,560	4,800	8,750	7,240	3,300	800	676
10	1,010	890	1,470	3,600	3,330	1,710	4,880	8,690	6,790	3,780	754	660
11	900	1,000	1,420	2,990	4,320	2,220	4,640	8,670	6,550	3,570	718	636
12	890	1,200	1,270	2,360	4,280	2,610	4,320	9,190	6,690	3,210	692	613
13	820	1,130	970	1,900	4,260	2,470	4,040	10,900	7,990	2,990	676	568
14	763	1,060	980	1,630	4,200	2,200	3,880	9,920	7,600	2,940	620	538
15	745	1,030	1,110	2,150	4,320	2,070	4,000	8,800	6,790	2,850	605	531
16	718	1,030	1,200	3,240	4,180	1,910	3,900	8,820	6,260	2,830	613	510
17	700	1,010	1,110	5,420	3,900	1,770	3,920	7,700	5,710	2,940	598	503
18	718	1,040	870	5,820	3,620	1,660	3,750	6,790	5,620	2,810	598	496
19	736	1,060	772	6,910	3,390	1,630	3,570	6,240	5,990	2,490	598	489
20	790	1,040	790	7,720	3,100	1,710	3,530	5,660	5,930	2,410	590	538
21	830	980	900	6,080	2,830	1,860	3,580	5,140	6,370	2,310	560	583
22	820	810	890	5,000	2,700	2,040	3,620	4,680	6,910	2,120	575	553
23	870	860	830	4,360	2,560	3,170	3,620	4,480	7,410	1,820	652	545
24	900	1,420	910	3,960	2,520	4,460	3,670	4,580	6,370	1,690	644	538
25	870	1,840	840	3,780	2,470	4,460	3,660	5,200	7,360	1,570	636	553
26	860	1,740	718	4,180	2,250	5,040	3,670	6,520	7,750	1,430	613	598
27	800	1,630	754	3,860	2,150	4,720	3,730	9,210	5,640	1,330	598	628
28	800	1,570	790	3,490	2,030	4,200	3,820	10,200	4,760	1,210	575	613
29	800	1,490	900	3,310	------	3,840	4,000	10,400	4,160	1,130	553	655
30	800	1,510	830	3,480	------	3,880	4,100	8,800	3,800	1,060	590	680
31	810	------	980	4,740	------	3,760	------	7,410	------	1,030	605	------
TOTAL	23,921	32,744	33,744	99,091	93,730	78,470	115,710	231,040	191,890	82,040	21,643	18,737
MEAN	772	1,091	1,089	3,196	3,348	2,531	3,857	7,453	6,396	2,646	698	625
MAX	1,010	1,840	1,590	7,720	5,000	5,040	4,880	10,900	7,990	4,080	960	830
MIN	628	772	718	580	2,030	1,560	3,030	4,360	3,800	1,030	553	489
AC-FT	47,450	64,950	66,930	196,500	185,900	155,600	229,500	458,300	380,600	162,700	42,930	37,160

CAL YR 1970 TOTAL 917,865 MEAN 2,515 MAX 10,800 MIN 402 AC-FT 1,821,000
WTR YR 1971 TOTAL 1,022,760 MEAN 2,802 MAX 10,900 MIN 489 AC-FT 2,029,000

PEAK DISCHARGE (BASE, 6,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
19	2300	6.15	9,370	5-29	0530	6.83	11,200
5-13	1130	6.89	11,400	6-25	2200	6.04	9,080

13333000 Grande Ronde River at Troy, Oreg.

LOCATION.--Lat 45°56'47", long 117°26'54", in NE¼NW¼ sec.4, T.5 N., R.43 E., Wallowa County, on left bank 500 ft downstream from bridge at Troy, 600 ft downstream from Wenaha River, and at mile 45.2.

DRAINAGE AREA.--3,275 sq mi.

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only August 1944, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 1,585.98 ft above mean sea level. Aug. 17, 1944, to Sept. 30, 1949 nonrecording gage at site 500 ft upstream at datum 10.85 ft lower. Oct. 1, 1949, to Sept. 5, 1963, water-stage recorder at site 500 ft upstream at datum 1.15 ft higher.

AVERAGE DISCHARGE.--27 years, 3,097 cfs (2,244,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Jan. 20,(gage height, 7.57 ft); minimum, 757 cfs Sept. 19.
Period of record: Maximum discharge, 42,200 cfs Dec. 23, 1964 (gage height, 11.25 ft); minimum 418 cfs Dec. 17, 1964.

REMARKS.--Records excellent. Flow slightly regulated by Wallowa Lake (see sta 13326000) and small reservoirs. Diversions for irrigation of about 95,000 acres above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Big Sheep Creek and tributaries in Imnaha River basin for irrigation of about 6,500 acres in Wallowa Valley.

REVISIONS (WATER YEARS).--WSP 1397: 1946(M), 1948-50.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	860	1,010	2,180	1,310	8,590	2,930	5,220	6,370	7,550	4,440	1,320	988
2	844	1,000	2,040	1,150	7,470	2,660	4,950	7,470	7,150	4,620	1,270	1,200
3	833	989	1,930	1,050	6,370	2,730	4,770	9,070	6,990	4,470	1,290	1,200
4	817	973	1,820	1,000	5,640	2,680	4,770	10,300	7,150	4,300	1,230	1,140
5	809	985	1,680	960	5,010	2,610	5,040	10,100	7,070	4,250	1,200	1,080
6	837	1,080	1,720	1,100	4,330	2,400	5,670	9,610	6,950	4,140	1,180	1,040
7	848	1,070	2,060	1,200	3,860	2,420	7,670	9,830	6,990	3,940	1,170	1,040
8	832	1,090	2,630	1,400	3,580	2,360	7,630	10,500	7,510	3,720	1,180	975
9	884	1,110	2,550	3,690	3,380	2,330	7,510	10,900	7,670	3,770	1,140	975
10	1,190	1,150	2,320	5,220	4,560	2,440	7,670	10,600	7,190	4,280	1,080	962
11	1,160	1,170	2,160	4,560	6,580	3,300	7,030	10,500	6,870	4,140	1,040	936
12	1,100	1,540	1,940	3,660	6,510	3,830	6,330	11,000	6,790	3,740	1,010	898
13	1,050	1,570	1,620	2,960	6,440	3,940	5,950	12,700	7,950	3,500	988	874
14	984	1,430	1,430	2,590	6,440	3,530	5,950	12,000	8,190	3,400	949	838
15	941	1,340	1,570	2,790	6,540	3,300	6,260	10,400	7,350	3,330	910	826
16	921	1,380	1,660	4,340	6,260	3,050	6,050	10,300	6,790	3,280	910	802
17	901	1,490	1,590	7,830	5,770	2,840	5,950	9,110	6,440	3,380	898	790
18	889	1,450	1,410	8,990	5,310	2,660	5,610	8,030	6,020	3,280	898	790
19	924	1,450	1,280	9,550	4,950	2,570	5,370	7,350	6,440	3,010	898	768
20	946	1,450	1,220	12,900	4,530	2,660	5,460	6,750	6,230	2,840	886	814
21	1,050	1,390	1,300	9,430	4,160	2,890	5,430	6,120	6,440	2,820	874	850
22	1,070	1,230	1,200	7,350	3,970	3,050	5,340	5,640	6,990	2,640	862	850
23	1,080	1,110	1,200	6,120	3,770	3,880	5,280	5,430	7,670	2,360	923	838
24	1,180	2,030	1,290	5,520	3,690	5,670	5,190	5,490	6,870	2,190	962	826
25	1,140	3,300	1,260	5,160	3,660	6,190	5,130	6,050	6,950	2,070	936	838
26	1,110	2,820	1,180	5,700	3,400	7,150	5,250	7,270	8,230	1,890	910	886
27	1,060	2,530	1,160	5,580	3,250	7,350	5,430	10,000	6,440	1,760	886	923
28	1,010	2,320	1,160	5,070	3,100	6,300	5,670	11,500	5,400	1,630	874	923
29	1,010	2,170	1,240	4,620	------	5,640	5,980	11,800	4,890	1,520	850	949
30	1,010	2,170	1,300	5,130	------	5,880	6,050	10,100	4,500	1,430	862	949
31	1,010	------	1,380	8,350	------	5,670	------	8,590	------	1,390	898	------
TOTAL	30,300	45,797	50,480	146,280	141,120	116,910	175,610	280,880	205,670	97,530	31,284	27,768
MEAN	977	1,527	1,628	4,719	5,040	3,771	5,854	9,061	6,856	3,146	1,009	926
MAX	1,190	3,300	2,630	12,900	8,590	7,350	7,670	12,700	8,230	4,620	1,320	1,200
MIN	809	973	1,160	960	3,100	2,330	4,770	5,430	4,500	1,390	850	768
AC-FT	60,100	90,840	100,100	290,100	279,900	231,900	348,300	557,100	407,900	193,500	62,050	55,080

CAL YR 1970 TOTAL 1,144,613 MEAN 3,136 MAX 15,100 MIN 627 AC-FT 2,270,000
WTR YR 1971 TOTAL 1,349,629 MEAN 3,698 MAX 12,900 MIN 768 AC-FT 2,677,000

PEAK DISCHARGE (BASE, 9,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-20	0300	7.57	14,600	5-29	0900	7.08	12,300
5-13	1400	7.26	13,200				

WALLA WALLA RIVER BASIN

14010000 South Fork Walla Walla River near Milton, Oreg.

LOCATION.--Lat 45°49'48", long 118°10'08", in NE¼NE¼ sec.15, T.4 N., R.37 E., Umatilla County, on right bank 1.0 mile downstream from Elbow Creek, 13 miles southeast of Milton, and at mile 59.1.

DRAINAGE AREA.--63 sq mi, approximately.

PERIOD OF RECORD.--February to October 1903, August 1906 to November 1917, May 1931 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "12 miles above Milton" 1903 and as "above Pacific Power & Light Co.'s intake near Milton" 1907-10.

GAGE.--Water-stage recorder. Altitude of gage is 2,050 ft (from river-profile map). Prior to Mar. 23, 1934, water-stage recorder or nonrecording gage at several sites within 1.5 miles of present site at various datums.

AVERAGE DISCHARGE.--50 years (1907-17, 1931-71), 175 cfs (37.72 inches per year, 126,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 870 cfs Jan. 19 (gage height, 3.20 ft); minimum, 108 cfs Oct. 4.
Period of record: Maximum discharge, 2,530 cfs Jan. 29, 1965 (gage height, 5.60 ft); minimum, 72 cfs Feb. 14, 1932.
Maximum stage about 6 ft Mar. 31, 1931, present site and datum.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 964: Drainage area. WSP 1398: 1912, 1940, drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	122	190	142	395	204	236	370	315	178	142	142
2	110	120	182	138	335	201	232	445	315	175	142	150
3	110	120	178	138	292	204	225	495	420	170	140	140
4	110	120	170	135	272	201	228	490	435	168	138	132
5	112	128	160	134	253	198	242	460	395	165	138	132
6	112	132	170	132	239	192	296	430	355	165	138	130
7	112	130	180	140	228	192	395	440	335	165	138	130
8	112	130	190	180	222	192	320	480	340	162	138	128
9	155	135	180	320	225	190	325	470	300	168	138	128
10	158	135	175	300	385	216	340	450	315	182	138	130
11	130	152	170	280	390	264	300	470	325	165	135	130
12	125	198	160	232	345	335	272	500	300	162	135	128
13	118	188	155	204	335	284	264	540	380	158	135	128
14	115	170	150	190	325	250	268	465	345	158	132	128
15	112	160	150	296	320	228	280	435	310	155	132	128
16	112	175	150	395	296	216	272	435	284	155	132	128
17	112	178	150	465	276	210	272	370	253	152	132	128
18	115	170	148	485	260	204	253	335	242	152	130	128
19	115	162	148	614	250	204	246	350	239	150	130	128
20	125	160	145	633	236	210	253	335	225	152	130	132
21	128	152	144	425	232	213	253	315	222	150	130	130
22	130	142	142	330	228	222	250	320	216	148	132	130
23	132	145	140	288	222	246	250	335	210	148	132	128
24	135	286	140	264	228	292	242	360	204	148	130	128
25	132	288	138	253	219	280	242	395	210	148	130	130
26	130	232	138	268	216	345	256	425	201	145	130	135
27	128	207	138	272	213	330	276	480	192	148	130	132
28	125	201	140	264	210	280	305	460	190	145	128	132
29	125	190	140	256	------	256	325	430	182	145	128	132
30	125	198	142	325	------	264	325	375	180	142	128	132
31	122	------	148	455	------	253	------	335	------	148	130	------
TOTAL	3,792	5,026	4,851	8,953	7,647	7,376	8,243	12,995	8,435	4,872	4,141	3,937
MEAN	122	168	156	289	273	238	275	419	281	157	134	131
MAX	158	288	190	633	395	345	395	540	435	182	142	150
MIN	110	120	138	132	210	190	225	315	180	142	128	128
AC-FT	7,520	9,970	9,620	17,760	15,170	14,630	16,350	25,780	16,730	9,660	8,210	7,810

CAL YR 1970 TOTAL 69,794 MEAN 191 MAX 680 MIN 105 AC-FT 138,400
WTR YR 1971 TOTAL 80,268 MEAN 220 MAX 633 MIN 110 AC-FT 159,200

PEAK DISCHARGE (BASE, 600 CFS).--About Jan. 9 (time unknown) 650 cfs (2.87 ft); Jan. 19 (2200 hrs) 870 cfs (3.20 ft).

14010800 North Fork Walla Walla River near Milton-Freewater, Oreg.

LOCATION.--Lat 44°53'06", long 118°11'06", in SE¼NW¼ sec.28, T.5 N., R.37 E., Umatilla County, on right bank 2.8 miles downstream from Little Meadow Canyon, 8.9 miles southeast of Milton-Freewater, and at mile 5.6.

DRAINAGE AREA.--34.4 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,940 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 782 cfs Jan. 19 (gage height, 6.30 ft), from rating curve extended above 170 cfs on basis of slope-area measurement of peak flow; minimum, 7.0 cfs Oct. 4.
Period of record: Maximum discharge, 782 cfs Jan. 19 (gage height, 6.30 ft); minimum, 6.8 cfs Aug. 21-29, 1970.

REMARKS.--Records poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	18	106	22	215	39	90	156	46	27	10	9.2
2	7.2	18	96	19	156	38	85	176	53	26	10	13
3	7.3	17	72	20	119	38	82	182	107	25	11	11
4	7.2	16	60	18	102	36	84	166	128	24	10	8.8
5	7.3	16	53	17	89	35	95	144	109	23	9.8	8.2
6	7.8	18	60	18	74	34	144	119	92	23	9.6	8.0
7	8.0	18	101	17	69	34	256	107	81	22	9.6	8.0
8	7.6	18	112	26	61	33	225	106	76	21	9.4	7.9
9	24	19	98	262	61	34	218	95	64	23	9.2	7.9
10	34	23	80	184	134	39	215	83	74	31	9.0	7.8
11	21	30	70	137	162	72	160	78	86	22	9.0	7.8
12	17	76	60	113	154	107	116	78	81	20	8.8	7.8
13	15	82	49	93	146	93	107	95	100	17	8.8	7.6
14	14	58	46	76	137	73	101	78	95	17	8.6	7.6
15	12	46	39	122	134	60	102	72	87	16	8.6	7.5
16	12	76	37	174	109	55	97	73	76	16	8.0	7.5
17	11	91	36	242	96	47	101	60	65	15	8.0	7.5
18	11	86	35	245	87	45	91	57	60	13	8.0	7.5
19	11	74	34	378	74	47	87	64	59	13	8.0	7.6
20	13	66	32	380	63	57	90	64	49	13	7.9	7.9
21	18	54	31	286	59	60	87	60	44	12	7.9	7.9
22	18	41	30	198	57	63	83	57	41	12	8.2	7.8
23	19	40	28	144	55	90	84	55	39	12	7.5	7.8
24	29	146	27	110	56	120	82	53	36	12	7.8	7.8
25	26	190	26	98	53	113	84	57	41	12	7.6	7.9
26	26	162	25	104	46	137	94	60	40	11	7.6	8.4
27	24	137	24	106	45	136	104	61	36	11	7.6	8.6
28	22	124	24	100	45	113	120	56	33	11	7.6	8.6
29	21	110	24	95	------	96	136	51	30	11	7.5	9.2
30	20	113	25	125	------	98	142	46	28	11	7.5	8.6
31	19	------	26	220	------	93	------	48	------	10	7.8	------
TOTAL	496.6	1,983	1,566	4,149	2,658	2,135	3,562	2,657	1,956	532	265.9	248.7
MEAN	16.0	66.1	50.5	134	94.9	68.9	119	85.7	65.2	17.2	8.58	8.29
MAX	34	190	112	380	215	137	256	182	128	31	11	13
MIN	7.2	16	24	17	45	33	82	46	28	10	7.5	7.5
AC-FT	985	3,930	3,110	8,230	5,270	4,230	7,070	5,270	3,880	1,060	527	493

CAL YR 1970 TOTAL 21,561.2 MEAN 59.1 MAX 395 MIN 7.0 AC-FT 42,770
WTR YR 1971 TOTAL 22,209.2 MEAN 60.8 MAX 380 MIN 7.2 AC-FT 44,050

PEAK DISCHARGE (BASE, 300 CFS).--Jan. 7 (0700) 400 cfs (5.10 ft); Jan. 19 (2100) 782 cfs (6.30 ft).

Springs in the Walla Walla River basin, Oreg.-Wash.

Ground-water overflow through many springs on the alluvial fan of the Walla Walla River near Milton-Freewater, Oreg., amounts to about 50,000 acre-feet a year. During the irrigation season practically all the overflow is used to water crops on land not served by diversion from the river. A survey made in 1933 listed 57 springs or spring groups in the area, arranged in "inner", "intermediate", and "outer" zones concentric about the apex of the alluvial fan.[1]

The inner zone is 3 to 3.5 miles below Milton-Freewater and extends from the vicinity of Nicholas Spring, which is about 0.5 mile east of the Walla Walla River at McCoy Bridge, to springs in the vicinity of Dugger Creek. Within this zone are fully three-fourths of the springs in the Walla Walla basin. The intermediate and outer zones, each of which contains only a few springs, are about 2 miles and 4 miles, respectively, beyond the inner zone.

In order to bring about a more effective use of the available water supply through a better understanding of the relation between surface- and ground-water supplies in the basin, discharge measurements of each of the principal springs and measurements of ground-water levels in representive wells have been made and the results published periodically since 1932.

Discharge measurements, in cubic feet per second, of springs in Walla Walla River Basin, Oreg.-Wash. during water year October 1970 to September 1971

Date	Spring	Location	Discharge (cfs)
Springs of the inner zone			
Jan. 26	Engle Spring, Oreg.	NW¼SE¼ sec.23, T.6 N., R.35 E., total flow at diversion dam	2.82
June 24	..... do	..... do	4.61
Springs of the intermediate and outer zones			
Jan. 26	Lewis Spring, Oreg.	NW¼NW¼ sec.23, T.6 N., R.35 E., below road crossing	1.91
June 24	..... do	..... do	2.85
Jan. 26	Unnamed Spring, Wash.	NW¼NE¼ sec.16, T.6 N., R.35 E., at small diversion structure	1.11
June 24	..... do	..... do	2.27
Jan. 26	East Mud Creek (west prong), Oreg.	SW¼SW¼ sec.22, T.6 N., R.35 E., at two weirs	[a].50
June 24	..... do	..... do	2.05

[1] Piper, A.M., Robinson, T.W., and Thomas, H.E., Ground Water in the Walla Walla Basin, Oreg.-Wash: Supreme Court of the United States, October term 1935, State of Washington vs. State of Oregon, transcript of record, p. 132A, October 14, 1935.

[a] Estimated.

14019200 Columbia River at McNary Dam, near Umatilla, Oreg.

LOCATION.--Lat 45°56'05", long 119°17'45", in NE¼ sec.10, T.5 N., R.28 E., Umatilla County, in powerhouse forebay between generator units 2 and 3 at McNary Dam, 2.5 miles northeast of Umatilla, 3.0 miles upstream from Umatilla River, and at mile 292.0.

DRAINAGE AREA.--214,000 sq mi, approximately.

PERIOD OF RECORD.--October 1950 to current year. Gage-height records collected at site at Umatilla since 1876 are contained in reports of U.S. Weather Bureau. Prior to October 1966, published as "below McNary Dam."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1966, at site 1.2 miles downstream (tailwater) at datum 240.04 ft above mean sea level.

AVERAGE DISCHARGE.--21 years, 185,400 cfs (134,300,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 560,000 cfs May 30; maximum forebay elevation, 340.3 ft July 17, 24; minimum daily discharge, 70,900 cfs Oct. 11; minimum forebay elevation, 335.3 ft Apr. 20, 22.

Period of record: Maximum discharge, 818,000 cfs June 2, 1936 (elevation, 277.01 ft, at site 1.2 miles downstream); maximum daily discharge, 798,000 cfs June 2, 1956; minimum daily discharge, 40,800 cfs Mar. 8, 1970

Flood of June 5, 1894, reached an elevation of 284.2 ft, and that of May 31, 1948, reached an elevation of about 280 ft, both at site 1.2 miles downstream, from information by Corps of Engineers.

REMARKS.--Records computed from power output and flow over spillway at McNary Dam. Considerable regulation by many reservoirs upstream. Diurnal fluctuation caused by powerplant and gates at McNary Dam since beginning of operation in April 1953. Many diversions for irrigation above station. Records of monthly chemical analysis for the water year 1971 are published in Part 2 of this report.

COOPERATION.--Daily discharge records furnished by Corps of Engineers. Six discharge measurements made and records reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118,000	88,600	137,000	113,000	184,000	228,000	219,000	284,000	494,000	310,000	202,000	123,000
2	100,000	109,000	129,000	95,000	206,000	174,000	224,000	294,000	486,000	403,000	215,000	112,000
3	87,100	106,000	126,000	112,000	202,000	204,000	223,000	382,000	496,000	372,000	208,000	129,000
4	72,900	110,000	113,000	113,000	191,000	197,000	174,000	435,000	477,000	355,000	210,000	117,000
5	124,000	122,000	116,000	137,000	196,000	226,000	223,000	464,000	481,000	345,000	206,000	102,000
6	114,000	124,000	125,000	157,000	166,000	213,000	229,000	468,000	470,000	347,000	212,000	98,300
7	120,000	101,000	126,000	122,000	124,000	196,000	246,000	463,000	469,000	336,000	189,000	103,000
8	106,000	80,700	119,000	111,000	131,000	181,000	254,000	464,000	483,000	315,000	175,000	118,000
9	84,700	108,000	111,000	112,000	161,000	203,000	247,000	495,000	494,000	301,000	199,000	101,000
10	113,000	126,000	130,000	100,000	197,000	196,000	266,000	502,000	501,000	286,000	195,000	114,000
11	70,900	85,100	137,000	125,000	159,000	209,000	268,000	511,000	489,000	292,000	202,000	84,400
12	101,000	108,000	130,000	145,000	158,000	227,000	246,000	499,000	477,000	286,000	195,000	77,400
13	121,000	114,000	101,000	157,000	163,000	213,000	249,000	498,000	476,000	280,000	192,000	94,900
14	115,000	121,000	128,000	149,000	168,000	228,000	241,000	520,000	485,000	287,000	148,000	94,700
15	114,000	102,000	132,000	113,000	186,000	216,000	282,000	509,000	476,000	249,000	146,000	107,000
16	127,000	119,000	127,000	90,600	209,000	200,000	275,000	509,000	480,000	252,000	159,000	96,600
17	115,000	116,000	93,600	108,000	192,000	224,000	285,000	507,000	513,000	258,000	142,000	110,000
18	74,800	138,000	125,000	148,000	218,000	224,000	264,000	471,000	498,000	257,000	159,000	92,200
19	134,000	126,000	143,000	101,000	220,000	182,000	252,000	458,000	484,000	256,000	140,000	71,600
20	124,000	104,000	121,000	189,000	206,000	163,000	254,000	441,000	466,000	256,000	175,000	80,600
21	98,500	103,000	112,000	208,000	188,000	150,000	266,000	433,000	451,000	253,000	125,000	103,000
22	118,000	93,100	136,000	193,000	167,000	190,000	262,000	418,000	468,000	257,000	71,700	131,000
23	89,300	110,000	139,000	149,000	200,000	199,000	254,000	412,000	459,000	240,000	95,700	126,000
24	86,000	136,000	128,000	135,000	198,000	222,000	259,000	411,000	471,000	248,000	111,000	95,600
25	101,000	134,000	76,500	140,000	200,000	230,000	264,000	416,000	457,000	252,000	131,000	89,000
26	148,000	122,000	89,600	153,000	217,000	238,000	190,000	453,000	464,000	258,000	130,000	99,000
27	135,000	113,000	98,000	176,000	211,000	209,000	198,000	480,000	412,000	257,000	118,000	104,000
28	96,600	102,000	118,000	182,000	204,000	192,000	197,000	497,000	440,000	241,000	136,000	108,000
29	116,000	94,700	130,000	144,000	-------	198,000	206,000	525,000	438,000	204,000	87,000	114,000
30	100,000	134,000	131,000	130,000	-------	216,000	235,000	560,000	397,000	185,000	116,000	87,100
31	74,500	-------	106,000	126,000	-------	220,000	-------	545,000	-------	190,000	122,000	-------
TOTAL	3,299.3M	3,350.2M	3,733.7M	4,233.6M	5,222.0M	6,368.0M	7,252.0M	14,324M	14,152M	8,628.0M	4,912.4M	3,083.4M
MEAN	106,400	111,700	120,400	136,600	186,500	205,400	241,700	462,100	471,700	278,300	158,500	102,800
MAX	148,000	138,000	143,000	208,000	220,000	238,000	285,000	560,000	513,000	403,000	215,000	131,000
MIN	70,900	80,700	76,500	90,600	124,000	150,000	174,000	284,000	397,000	185,000	71,700	71,600
AC-FT	6,544M	6,645M	7,406M	8,397M	10,360M	12,630M	14,380M	28,410M	28,070M	17,110M	9,744M	6,116M

CAL YR 1970 TOTAL 57,149,700 MEAN 156,600 MAX 433,000 MIN 40,800 AC-FT 113,400,000
WTR YR 1971 TOTAL 78,558,600 MEAN 215,200 MAX 560,000 MIN 70,900 AC-FT 155,800,000

14020000 Umatilla River above Meacham Creek, near Gibbon, Oreg.

LOCATION.--Lat 45°43'11", long 118°19'20", in SE¼SW¼ sec.21, T.3 N., R.36 E., Umatilla County, Umatilla Indian Reservation, on right bank 0.8 mile downstream from Ryan Creek, 2.2 miles upstream from Meacham Creek, 2.5 miles northeast of Gibbon, and at mile 83.1.

DRAINAGE AREA.--131 sq mi.

PERIOD OF RECORD.--April 1933 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,854.81 ft above mean sea level. Prior to June 27, 1939, at site 1 mile downstream at datum 43.96 ft lower.

AVERAGE DISCHARGE.--38 years, 221 cfs (22.91 inches per year, 160,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,990 cfs Jan. 19 (gage height, 5.78 ft); minimum, 44 cfs Sept. 28.
Period of record: Maximum discharge, 4,910 cfs Jan. 29, 1965 (gage height, 9.50 ft), from rating curve extended above 2,100 cfs on basis of slope-area measurement of peak flow; minimum, 16 cfs Nov. 9, 1965.

REMARKS.--Records fair. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1935: 1946-48(M), 1950(M), 1953(M), 1956-59(M). WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	72	227	128	836	210	332	560	268	117	60	61
2	51	70	206	125	668	190	304	692	304	114	60	63
3	52	68	180	123	536	185	293	782	554	110	60	57
4	52	68	165	115	470	180	296	740	596	106	60	51
5	55	72	152	115	400	170	336	656	485	105	58	48
6	58	81	155	126	352	160	495	572	405	103	57	48
7	62	81	198	121	316	152	758	542	360	101	58	48
8	61	82	248	165	290	150	590	560	348	96	57	48
9	96	85	224	1,330	282	155	560	520	304	97	57	46
10	103	91	200	897	638	192	578	470	300	110	57	46
11	75	115	192	590	776	304	500	455	286	97	56	46
12	67	212	178	410	698	415	430	480	265	92	56	46
13	62	178	165	324	644	372	390	536	316	89	53	46
14	60	137	158	268	620	300	395	445	293	85	53	46
15	57	117	152	304	620	254	440	405	272	84	53	46
16	56	114	148	495	554	224	420	410	254	82	53	46
17	55	114	139	981	480	206	415	336	230	77	53	46
18	56	124	137	1,020	430	260	372	304	224	68	52	48
19	58	124	135	1,330	376	215	352	316	221	67	51	48
20	62	121	132	1,430	344	251	368	312	203	64	53	49
21	71	114	130	842	320	268	368	293	192	63	53	51
22	79	99	123	608	304	286	360	282	182	62	53	51
23	89	96	119	495	286	360	364	279	175	62	52	50
24	105	258	115	445	286	505	368	282	165	61	52	46
25	97	376	112	425	268	470	372	308	168	63	53	49
26	94	300	110	490	254	566	395	332	152	62	54	50
27	89	254	106	490	248	620	430	380	143	62	54	46
28	85	240	108	455	234	440	470	356	137	61	55	46
29	81	227	112	420	------	380	515	324	130	61	56	52
30	77	244	110	644	------	410	505	286	123	61	56	49
31	75	------	135	1,030	------	376	------	276	------	60	58	------
TOTAL	2,191	4,334	4,771	16,741	12,530	9,166	12,771	13,491	8,055	2,542	1,713	1,473
MEAN	70.7	144	154	540	448	296	426	435	269	82.0	55.3	49.1
MAX	105	376	248	1,430	836	620	758	782	596	117	60	63
MIN	51	68	106	115	234	150	293	276	123	60	51	46
CFSM	.54	1.10	1.18	4.12	3.42	2.26	3.25	3.32	2.05	.63	.42	.37
IN.	.62	1.23	1.35	4.75	3.56	2.60	3.63	3.83	2.29	.72	.49	.42
AC-FT	4,350	8,600	9,460	33,210	24,850	18,180	25,330	26,760	15,980	5,040	3,400	2,920

CAL YR 1970 TOTAL 94,987 MEAN 260 MAX 2,160 MIN 43 CFSM 1.98 IN 26.97 AC-FT 188,400
WTR YR 1971 TOTAL 89,778 MEAN 246 MAX 1,430 MIN 46 CFSM 1.88 IN 25.49 AC-FT 178,100

PEAK DISCHARGE (BASE, 1,400 CFS).--Jan. 9 (0900) 1,400 cfs (5.09 ft); Jan. 19 (2100) 1,990 cfs (5.78 ft).

UMATILLA RIVER BASIN

14020700 Umatilla River near Cayuse, Oreg.

LOCATION.--Lat 45°40'57", long 118°31'15", in SE¼NE¼ sec.2, T.2 N., R.34 E., Umatilla County, Umatilla Indian Reservation, on left bank 10 miles east of Pendleton, 1.7 miles east of Cayuse, and at mile 70.7.

DRAINAGE AREA.--384 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,453.36 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,690 cfs Jan. 19 (gage height, 6.68 ft); minimum, 42 cfs Oct. 5.
Period of record: Maximum discharge, 8,830 cfs Jan. 6, 1969 (gage height, 8.21 ft); minimum, 37 cfs Aug. 28, 1970.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	104	622	150	1,920	390	940	1,020	455	157	52	71
2	44	99	551	140	1,480	345	860	1,180	536	149	52	95
3	44	96	472	130	1,140	358	810	1,320	1,120	139	52	80
4	44	91	407	130	970	345	810	1,300	1,550	130	51	66
5	44	92	359	140	820	320	890	1,140	1,230	124	51	61
6	49	108	341	150	690	290	1,170	1,000	970	121	49	59
7	54	112	395	161	592	290	1,900	920	830	115	49	57
8	51	114	547	187	528	285	1,540	950	750	110	48	54
9	90	119	564	2,600	494	290	1,350	890	640	110	47	52
10	140	131	492	2,490	900	351	1,410	800	584	145	46	52
11	100	153	477	1,610	1,520	690	1,200	760	552	124	44	51
12	84	384	425	1,100	1,390	950	1,020	790	501	110	44	51
13	76	434	388	797	1,300	950	920	870	552	103	48	49
14	70	352	360	616	1,200	810	880	720	528	95	47	49
15	66	293	345	598	1,200	700	940	640	488	90	46	49
16	63	261	327	851	1,100	592	920	660	442	88	46	48
17	60	253	304	1,600	970	514	930	528	403	84	46	47
18	60	266	274	2,270	860	475	840	468	384	80	46	47
19	63	283	248	3,070	770	488	790	481	390	73	46	47
20	66	285	241	3,580	670	544	820	481	338	73	46	51
21	78	275	234	1,970	592	610	870	449	310	69	47	54
22	90	246	222	1,380	568	660	870	436	290	67	51	52
23	105	230	208	1,050	528	880	890	429	275	66	55	52
24	134	408	198	910	514	1,480	910	416	255	64	51	51
25	136	912	189	820	507	1,450	920	462	260	62	49	54
26	139	782	179	890	462	1,620	950	501	235	61	48	66
27	133	652	173	970	442	1,740	980	710	213	59	48	62
28	126	619	170	920	423	1,300	1,000	640	197	57	48	61
29	118	583	179	840	------	1,100	1,040	568	185	55	48	69
30	112	630	173	1,070	------	1,170	1,000	494	169	55	48	67
31	106	------	160	2,320	------	1,100	------	468	------	54	52	------
TOTAL	2,589	9,367	10,224	35,510	24,550	23,087	30,370	22,491	15,632	2,889	1,501	1,724
MEAN	83.5	312	330	1,145	877	745	1,012	726	521	93.2	48.4	57.5
MAX	140	912	622	3,580	1,920	1,740	1,900	1,320	1,550	157	55	95
MIN	44	91	160	130	423	285	790	416	169	54	44	47
AC-FT	5,140	18,580	20,280	70,430	48,690	45,790	60,240	44,610	31,010	5,730	2,980	3,420

CAL YR 1970 TOTAL 115,489 MEAN 316 MAX 2,270 MIN 11 AC-FT 229,100
WTR YR 1971 TOTAL 179,934 MEAN 493 MAX 3,580 MIN 44 AC-FT 356,900

PEAK DISCHARGE (BASE, 2,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 9	1430	6.03	3,760	1-31	0730	5.71	2,540
1-19	2330	6.68	4,690				

14021000 Umatilla River at Pendleton, Oreg.

LOCATION (revised).--Lat 45°40'20", long 118°47'30", in NW¼NE¼ sec.10, T.2 N., R.32 E., Umatilla County, on wingwall 0.3 miles downstream from Main Street bridge at Pendleton, 1.5 miles downstream from Wildhorse Creek, 2.8 miles upstream from McKay Creek, and at mile 55.2.

DRAINAGE AREA.--637 sq mi.

PERIOD OF RECORD.--February 1891 to July 1892, May 1903 to June 1905 (gage heights and discharge measurements only June to December 1906), October 1934 to current year. Monthly discharge only February 1891 to July 1892, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (from topographic map). Apr. 24 to Aug. 26, 1959, nonrecording gage and Aug. 27, 1959, to Feb. 4, 1965, water-stage recorder at same site at datum of 1,067.01 ft. Feb. 5 to Nov. 18, 1965, wire-weight gage at Main Street bridge site. Nov. 19, 1965, to Mar. 28, 1967, water-stage recorder at site 0.7 mile upstream at datum of 1,067.60 ft. Nov. 19, 1965, to Sept. 30, 1969, at site 0.7 mile upstream at datum of 1,064.02 ft. See WSP 1738 for history of changes prior to Apr. 24, 1959.

AVERAGE DISCHARGE.--37 years (1934-71), 489 cfs (354,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,550 cfs Jan. 20 (gage height, 7.35 ft); minimum, 18 cfs Aug. 13.
Period of record: Maximum discharge, 15,500 cfs Jan. 30, 1965 (gage height, 9.40 ft, datum then in use); minimum, 10 cfs July 13-16, 1960.
Maximum discharge, 17,000 cfs Dec. 14, 1882 (date and discharge from data furnished by Corps of Engineers). Flood of May 30, 31, 1906, reached a stage of 11.0 ft, 1934-58 site and datum, but before channel was improved (discharge, 15,500 cfs, estimated by Corps of Engineers).

REMARKS.--Records fair. No regulation. Many diversion for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1398: 1906, 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	117	707	204	1,630	447	910	980	535	161	43	58
2	44	113	629	150	1,260	403	840	1,090	590	145	40	83
3	44	109	557	140	1,060	414	801	1,180	910	141	49	78
4	43	101	546	140	938	403	801	1,150	1,270	133	41	63
5	43	161	425	140	827	370	814	1,060	1,110	121	39	56
6	48	113	392	140	749	346	1,010	1,000	924	101	39	52
7	57	125	425	150	674	330	1,460	960	827	89	38	50
8	57	125	579	180	676	330	1,270	920	749	105	40	50
9	67	129	629	500	579	330	1,160	900	686	109	35	47
10	137	137	557	2,200	775	354	1,200	840	650	145	30	43
11	117	149	546	1,360	1,220	662	1,110	775	614	137	33	41
12	89	322	513	1,100	1,160	868	980	788	568	117	31	43
13	80	562	458	885	1,140	938	882	840	590	97	25	42
14	76	414	414	765	1,090	814	814	775	590	89	25	45
15	74	338	392	720	1,110	749	868	723	557	81	27	45
16	71	290	362	873	1,040	674	868	723	524	76	30	45
17	69	280	338	1,630	938	614	910	638	480	72	38	44
18	67	260	306	2,130	840	557	840	557	469	63	39	41
19	69	250	269	2,600	775	557	814	568	458	52	39	40
20	74	260	255	3,480	710	614	827	568	381	52	36	41
21	83	290	255	2,000	662	674	840	546	346	58	37	47
22	93	250	227	1,360	638	698	868	524	330	58	39	43
23	113	240	209	1,150	614	840	868	524	290	58	42	42
24	137	240	198	1,040	579	1,220	910	491	255	54	40	47
25	153	800	192	924	568	1,210	924	535	262	54	35	47
26	153	800	170	966	524	1,280	952	546	255	44	36	50
27	149	720	176	1,040	513	1,450	952	686	220	38	34	54
28	141	694	161	994	491	1,150	980	698	214	35	37	54
29	137	681	170	924	------	1,040	1,010	638	192	40	35	58
30	129	694	165	1,010	------	1,060	980	579	165	45	35	61
31	121	------	187	1,870	------	1,020	------	546	------	50	35	------
TOTAL	2,781	9,664	11,409	32,762	23,730	22,416	28,463	23,348	16,011	2,620	1,122	1,510
MEAN	89.7	320	368	1,057	848	723	949	753	534	84.5	36.2	50.3
MAX	153	800	707	3,480	1,630	1,450	1,460	1,180	1,270	161	49	83
MIN	43	101	161	140	491	330	801	491	165	35	25	40
AC-FT	5,520	19,050	22,630	64,980	47,070	44,460	56,460	46,310	31,760	5,200	2,230	3,000

CAL YR 1970 TOTAL 230,464 MEAN 631 MAX 9,540 MIN 20 AC-FT 457,100
WTR YR 1971 TOTAL 175,776 MEAN 482 MAX 3,480 MIN 25 AC-FT 348,700

PEAK DISCHARGE (BASE, 3,500 CFS).--Jan. 10 (time unknown) 3,760 cfs (6.72 ft); Jan. 20 (0100) 4,550 cfs (7.35 ft).

14022500 McKay Creek near Pilot Rock, Oreg.

LOCATION.--Lat 45°32'57", long 118°46'26", in NW¼SE¼ sec.23, T.1 N., R.32 E., Umatilla County, on left bank 500 ft upstream from county road bridge, 5.5 miles northeast of Pilot Rock, and at mile 8.2.

DRAINAGE AREA.--180 sq mi.

PERIOD OF RECORD.--May to August 1921, October 1926 to June 1928, December 1928 to July 1929, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,343.60 ft above mean sea level. See WSP 1318 or 1738 for history of changes prior to Apr. 9, 1941. Apr. 9, 1941, to July 24, 1963, at site 1,000 ft downstream at datum 7.92 ft lower.

AVERAGE DISCHARGE.--43 years (1926-27, 1929-71), 96.6 cfs (69,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 872 cfs Jan. 19 (gage height, 3.36 ft); minimum, 0.20 cfs Aug. 30, 31.
Period of record: Maximum discharge, 7,400 cfs Jan. 30, 1965 (gage height, 8.40 ft); no flow at times.

REMARKS.--Records good. No regulation. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1398: 1928-29, 1933, 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	12	115	18	201	70	226	170	45	17	.90	.50
2	.50	10	102	17	176	62	212	148	66	15	.90	.50
3	.60	9.5	88	16	145	68	187	136	200	15	1.0	.40
4	.60	9.5	80	15	130	68	173	124	338	12	.90	.40
5	.60	9.0	70	15	118	62	180	112	258	10	.90	.40
6	.60	12	64	15	95	56	190	92	196	10	.90	.50
7	.60	13	70	16	88	56	250	80	148	10	.90	.60
8	.60	13	72	18	82	54	232	70	130	9.5	.80	.80
9	.80	16	72	261	80	56	212	62	108	9.0	.80	1.0
10	3.1	19	66	314	112	60	222	49	95	13	.70	1.0
11	2.8	24	72	270	136	70	204	44	92	12	.60	1.0
12	1.9	73	72	222	136	84	184	39	82	9.5	.60	1.3
13	1.6	90	68	173	133	105	170	43	92	7.5	.60	1.3
14	1.3	72	60	139	133	121	159	38	92	6.7	.50	1.6
15	1.3	52	54	124	136	127	156	37	82	5.8	.50	2.2
16	1.6	44	49	159	133	118	145	44	74	5.2	.50	2.2
17	3.7	40	45	342	124	108	166	36	62	4.9	.50	2.2
18	3.7	37	39	465	118	98	170	33	58	3.7	.50	2.5
19	4.6	37	34	525	112	98	187	33	58	3.4	.40	2.2
20	5.2	36	33	660	102	102	204	37	48	2.8	.30	2.8
21	5.8	35	31	430	92	110	258	33	43	2.2	.40	3.1
22	6.1	32	28	314	92	118	310	28	38	2.5	.40	3.1
23	6.7	30	26	258	90	176	338	26	34	2.5	.50	3.1
24	9.0	32	24	218	88	290	362	24	32	1.9	.40	1.9
25	10	44	23	196	86	294	362	24	31	1.6	.30	1.6
26	13	54	20	198	82	342	338	38	28	1.6	.30	1.9
27	13	62	19	201	80	330	290	38	26	1.6	.30	2.8
28	13	78	18	190	76	278	262	33	24	1.3	.30	3.4
29	13	90	18	173	------	262	232	31	24	1.3	.30	4.0
30	12	118	18	176	------	274	201	30	18	1.0	.20	4.6
31	12	------	19	215	------	250	------	36	------	.90	.20	------
TOTAL	149.80	1,203.0	1,569	6,351	3,176	4,367	6,782	1,768	2,620	200.40	17.30	54.90
MEAN	4.83	40.1	50.6	205	113	141	226	57.0	87.3	6.46	.56	1.83
MAX	13	118	115	660	201	342	362	170	338	17	1.0	4.6
MIN	.50	9.0	18	15	76	54	145	24	18	.90	.20	.40
AC-FT	297	2,390	3,110	12,600	6,300	8,660	13,450	3,510	5,200	397	34	109

CAL YR 1970 TOTAL 43,926.80 MEAN 120 MAX 1,490 MIN .10 AC-FT 87,130
WTR YR 1971 TOTAL 28,258.40 MEAN 77.4 MAX 660 MIN .20 AC-FT 56,050

PEAK DISCHARGE (BASE, 840 CFS).--Jan. 19 (2200) 872 cfs (3.36 ft).

14023000 McKay Reservoir near Pendleton, Oreg.

LOCATION.--Lat 45°36'28", long 118°47'30", in SE¼ sec.34, T.2 N., R.32 E., Umatilla County, on Bureau of Reclamation land, near right end of McKay Dam on McKay Creek, 4.0 miles south of Pendleton, and at mile 4.9.

DRAINAGE AREA.--186 sq mi.

PERIOD OF RECORD.--December 1927 to current year.

GAGE.--Nonrecording gage. Datum of gage is 0.16 ft above mean sea level.

EXTREMES.--Current year: Maximum contents observed, 69,500 acre-ft June 22 (gage height, 1,318.5 ft); minimum observed, 15,410 acre-ft (gage height, 1,249.6 ft).

Period of record: Maximum contents observed, 73,840 acre-ft June 9, 1950 (gage height, 1,322.0 ft); no usable contents Sept. 7, 1966.

REMARKS.--Reservoir is formed by gravel-fill dam with concrete facing, completed in 1926; storage began in 1927. Usable capacity, 73,830 acre-ft, between gage heights 1,182.0 (floor of trashrack structure) and 1,322.0 ft (top of spillway gates). Dead storage, about 6 acre-ft, included in records. Water is used for irrigation of lands along McKay Creek and Umatilla River.

COOPERATION.--Gage heights and capacity table furnished by Bureau of Reclamation.

REVISIONS.--WSP 1156: Drainage area.

MONTHEND GAGE HEIGHT AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,249.6	15,410	-
Oct. 31	-	[a]15,800	+390
Nov. 30	-	[a]18,300	+2,500
Dec. 31	1,262.1	22,070	+3,770
CAL YR 1970	-	-	-6,240
Jan. 31	1,281.9	34,890	+12,820
Feb. 28	-	[a]41,000	+6.110
Mar. 31	1,299.3	49,190	+8,190
Apr. 30	1,312.1	62,160	+12,970
May 31	1,314.55	64,880	+2,720
June 30	1,316.35	66,940	+2,060
July 31	1,297.0	47,110	-19,830
Aug. 31	1,266.45	24,640	-22,470
Sept.30	1,252.4	16,800	-7,840
WTR YR 1971	-	-	+1,390

[a] No gage-height record, contents interpolated.

14023500 McKay Creek near Pendleton, Oreg.

LOCATION.--Lat 45°36'34", long 118°47'55", in SE¼NW¼ sec.34, T.2 N., R.32 E., Umatilla County, on right bank 35 ft upstream from diversion dam, 0.2 mile downstream from McKay Dam, 4.5 miles south of Pendleton, and at mile 4.7.

DRAINAGE AREA.--186 sq mi.

PERIOD OF RECORD.--November 1918 to May 1919, October 1919 to September 1923, October 1924 to September 1927, November 1927 to September 1943, April 1944 to October 1947 (irrigation seasons only), March 1948 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Concrete control since Mar. 23, 1928. Datum of gage is 1,163.71 ft above mean sea level (Bureau of Reclamation bench mark). See WSP 1318 or 1738 for history of changes prior to Nov. 16, 1948.

AVERAGE DISCHARGE.--34 years,(1932-43, 1948-71), 90.3 cfs (65,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 480 cfs Aug. 10 (gage height, 1.76 ft); no flow Oct. 1 to May 10.
Period of record: Maximum discharge observed, 3,250 cfs Feb. 10, 1921 (gage height, 4.4 ft, site and datum then in use), from rating curve extended above 1,200 cfs; no flow at times each year.

REMARKS.--Records good. Flow completely regulated since 1927 by McKay Reservoir (see station 14023000). Many diversions for irrigation above station. Since 1932, records have excluded flow in Elder ditch which, since 1953, has diverted not over 1.5 cfs at station for irrigation during season and up to 1 cfs (seepage from reservoir) for stock water at other times.

REVISIONS (WATER YEARS).--WSP 1154: Drainage area. WSP 1398: 1923.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	9.5	249	355	256
2								0	9.5	256	355	218
3								0	9.5	242	355	194
4								0	9.5	286	355	194
5								0	9.5	290	355	194
6								0	9.5	266	355	170
7								0	9.5	270	355	143
8								0	9.5	302	355	130
9								0	9.5	302	334	130
10								0	9.5	302	405	130
11								4.0	9.5	302	380	130
12								9.5	9.5	302	395	128
13								9.5	9.5	302	415	128
14								9.5	9.5	302	445	128
15								9.5	9.5	302	445	125
16								9.5	9.5	302	430	140
17								9.5	9.5	302	405	155
18								9.5	9.5	302	390	155
19								9.5	9.5	314	360	158
20								9.5	9.5	346	355	179
21								9.5	9.5	365	355	188
22								9.5	38	365	350	185
23								9.5	100	360	342	122
24								9.5	118	360	322	1.4
25								9.5	143	360	302	1.4
26								9.5	146	360	286	1.0
27								9.5	149	360	286	1.8
28								9.5	158	360	282	4.1
29					------			9.5	179	360	282	5.0
30					------			9.5	224	360	278	5.0
31		------			------		------	9.5	------	355	274	------
TOTAL	0	0	0	0	0	0	0	194.0	1,454.5	9,806	10,958	3,699.7
MEAN	0	0	0	0	0	0	0	6.26	48.5	316	353	123
MAX	0	0	0	0	0	0	0	9.5	224	365	445	256
MIN	0	0	0	0	0	0	0	0	9.5	242	274	1.0
AC-FT	0	0	0	0	0	0	0	385	2,890	19,450	21,740	7,340

CAL YR 1970 TOTAL 45,361.00 MEAN 124 MAX 495 MIN 0 AC-FT 89,970
WTR YR 1971 TOTAL 26,112.20 MEAN 71.5 MAX 445 MIN 0 AC-FT 51,790

14024200 East Birch Creek near Pilot Rock, Oreg.

LOCATION.--Lat 45°25'55", long 118°49'12", in SW¼SE¼ sec.33, T.1 S., R.32 E., Umatilla County, on right bank 40 ft downstream from county road bridge, 2.0 miles downstream from California Gulch, 3.5 miles south of Pilot Rock, and at mile 21.8.

DRAINAGE AREA.--69.7 sq mi.

PERIOD OF RECORD.--June 1964 to September 1967 (discharge measurements only). October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,918.50 ft above mean sea level, elevation by plane table closed stadia traverse (levels by USGS).

EXTREMES.--Current year: Maximum discharge, 214 cfs Jan. 19 (gage height, 2.80 ft); minimum, 0.19 cfs Aug. 14-16.
Period of record: Maximum discharge, 551 cfs June 5, 1969 (gage height, 3.40 ft), from rating curve extended above 290 cfs on basis of slope-area measurement of peak flow; minimum, 0.08 cfs Aug. 10-12, 1968.

REMARKS.--Records good except those for January to August, which are poor. No regulation. Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	8.5	28	5.6	74	22	61	82	21	11	2.2	1.1
2	1.8	8.5	27	1.4	71	20	53	90	26	9.5	1.8	1.1
3	1.8	8.5	26	1.7	61	23	45	94	41	6.4	1.7	1.1
4	1.8	8.5	26	1.4	53	21	44	90	60	7.2	1.6	1.1
5	1.8	9.0	26	2.4	45	20	44	78	58	7.6	1.1	1.1
6	1.7	12	26	4.2	37	20	56	66	50	7.6	.98	1.2
7	1.7	12	29	6.8	32	21	96	68	45	7.2	1.1	1.7
8	2.0	13	34	12	29	20	97	56	41	7.2	.88	2.0
9	2.6	13	35	31	28	20	92	45	36	7.2	.51	2.2
10	6.0	12	30	52	30	21	94	34	37	10	.44	2.0
11	7.6	14	30	53	35	24	80	30	37	9.5	.37	1.8
12	8.5	17	28	47	36	35	66	27	34	7.2	.37	1.8
13	6.8	19	26	41	36	41	56	27	38	4.8	.37	1.8
14	6.8	18	24	36	40	44	50	24	38	3.9	.37	1.8
15	6.0	17	23	37	47	40	50	24	37	3.4	.22	1.8
16	5.6	17	20	56	48	35	48	24	35	2.9	.31	1.8
17	5.2	15	17	96	47	31	48	22	31	3.2	.59	1.7
18	5.2	14	14	138	42	28	44	22	31	3.2	.51	1.7
19	6.8	14	12	176	38	27	41	22	32	3.6	.51	1.6
20	6.4	12	12	164	35	27	42	21	28	3.4	.51	1.7
21	6.4	12	12	156	31	28	68	21	24	3.4	.51	1.7
22	7.2	9.5	11	130	31	30	84	19	20	3.2	.68	1.6
23	7.6	10	10	100	29	38	110	14	19	2.6	.78	1.7
24	7.6	14	9.0	80	28	78	116	12	18	3.2	.78	2.0
25	8.0	17	8.0	68	27	86	114	13	18	2.9	.78	2.2
26	9.0	18	6.8	61	24	98	110	15	18	2.4	.78	2.4
27	8.5	19	7.6	58	24	110	104	14	16	2.6	.78	2.6
28	8.5	20	7.6	55	23	98	98	13	15	2.4	.78	2.9
29	9.0	21	8.0	52	------	86	94	12	14	2.2	.88	3.2
30	9.0	26	7.6	48	------	84	86	14	12	2.2	.88	3.4
31	8.5	------	8.0	64	------	71	------	19	------	2.2	.98	------
TOTAL	177.1	428.5	588.6	1,834.5	1,081	1,347	2,191	1,112	930	155.3	25.05	55.8
MEAN	5.71	14.3	19.0	59.2	38.6	43.5	73.0	35.9	31.0	5.01	.81	1.86
MAX	9.0	26	35	176	74	110	116	94	60	11	2.2	3.4
MIN	1.7	8.5	6.8	1.4	23	20	41	12	12	2.2	.22	1.1
AC-FT	351	850	1,170	3,640	2,140	2,670	4,350	2,210	1,840	308	50	111

CAL YR 1970 TOTAL 13,530.24 MEAN 37.1 MAX 343 MIN .49 AC-FT 26,840
WTR YR 1971 TOTAL 9,925.85 MEAN 27.2 MAX 176 MIN .22 AC-FT 19,690

PEAK DISCHARGE (BASE, 190 CFS).--Jan. 19 (2000) 214 cfs (2.80 ft).

14025000 Birch Creek at Rieth, Oreg.

LOCATION.--Lat 45°39'10", long 118°52'45", in SE¼ sec.13, T.2 N., R.31 E., Umatilla County, on right bank 600 ft downstream from road bridge, 0.3 mile southwest of Rieth, and at mile 0.2.

DRAINAGE AREA.--291 sq mi.

PERIOD OF RECORD.--May to August 1921, March to July 1922, April to September 1923, April to September 1927, January to June 1928, November 1928 to August 1929, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 951.04 ft above mean sea level. See WSP 1738 for history of changes prior to July 24, 1957.

AVERAGE DISCHARGE.--42 years (1929-71), 47.0 cfs (34,050 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 429 cfs Jan. 20 (gage height, 2.63 ft); no flow at times.
Period of record: Maximum discharge, 2,200 cfs Jan. 30, 1965 (gage height, 6.40 ft); no flow at times.

REMARKS.--Records poor. No regulation. Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 984: 1939. WSP 1398: 1929, 1932-33, 1938-39, 1940(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	18	44	22	130	42	130	148	22	.30		
2	.20	18	46	15	110	36	121	152	42	.30		
3	.20	19	45	12	100	44	114	162	64	.40		
4	.20	16	40	11	90	38	112	160	102	1.0		
5	.20	16	35	13	75	33	116	144	98	.60		
6	.20	17	34	16	60	29	132	122	88	0		
7	.70	20	35	20	55	24	186	108	77	0		
8	1.8	20	45	22	50	27	174	97	71	0		
9	3.2	20	54	30	50	28	158	90	65	0		
10	3.2	20	50	50	57	28	192	58	60	0		
11	4.0	20	45	54	61	31	158	40	60	0		
12	4.9	25	35	52	63	37	146	38	53	0		
13	7.3	31	35	43	68	42	128	49	61	0		
14	8.0	30	37	42	79	42	124	40	65	0		
15	8.6	30	40	43	82	40	122	40	58	0		
16	8.6	29	37	56	79	39	112	54	42	0		
17	9.8	27	35	106	68	38	104	45	43	0		
18	9.8	26	34	188	64	33	98	37	48	0		
19	11	22	33	255	60	33	97	32	63	0		
20	13	21	32	405	56	33	92	33	52	0		
21	16	20	31	310	52	30	112	30	44	0		
22	20	20	31	250	53	28	118	23	33	0		
23	20	21	31	200	49	34	138	18	29	0		
24	20	22	30	150	47	61	164	13	19	0		
25	18	25	29	140	47	98	162	13	17	0		
26	20	26	25	130	47	134	162	23	22	0		
27	20	28	25	120	53	180	170	21	13	0		
28	19	30	25	110	47	168	166	15	11	0		
29	18	35	23	100	------	146	162	9.8	3.2	0		
30	20	39	22	110	------	152	154	10	1.0	0		
31	19	------	22	120	------	146	------	13	------	0		------
TOTAL	305.10	711	1,085	3,195	1,852	1,874	4,124	1,837.8	1,426.2	2.60	0	0
MEAN	9.84	23.7	35.0	103	66.1	60.5	137	59.3	47.5	.084	0	0
MAX	20	39	54	405	130	180	192	162	102	1.0	0	0
MIN	.20	16	22	11	47	24	92	9.8	1.0	0	0	0
AC-FT	605	1,410	2,150	6,340	3,670	3,720	8,180	3,650	2,830	5.2	0	0

CAL YR 1970 TOTAL 22,454.90 MEAN 61.5 MAX 896 MIN .20 AC-FT 44,540
WTR YR 1971 TOTAL 16,412.70 MEAN 45.0 MAX 405 MIN 0 AC-FT 32,550

PEAK DISCHARGE (BASE, 300 CFS).--Jan. 20 (0800) 429 cfs (2.63 ft).

NOTE.--No gage-height record Nov. 20 to Dec. 21.

14026000 Umatilla River at Yoakum, Oreg.

LOCATION.--Lat 45°40'40", long 119°02'00", in SW¼ sec.2, T.2 N., R.30 E., Umatilla County, at left bank on downstream side of highway bridge, 0.5 mile northeast of Yoakum, 2.5 miles downstream from abandoned Furnish Reservoir, 12.0 miles downstream from Birch Creek, and at mile 37.7.

DRAINAGE AREA.--1,280 sq mi, approximately.

PERIOD OF RECORD.--May 1903 to current year. Published as "above Furnish Reservoir, near Yoakum" October 1916 to September 1934.

GAGE.--Water-stage recorder. Datum of gage is 768.21 ft above mean sea level. See WSP 1318 or 1738 for history of changes prior to Oct. 21, 1948.

AVERAGE DISCHARGE.--68 years, 661 cfs (478,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,510 cfs Jan. 20 (gage height, 7.45 ft); minimum, 51 cfs Oct. 2.
Period of record: Maximum discharge, 20,000 cfs May 30, 1906 (gage height, about 15.0 ft, site and datum then in use, from floodmarks), from rating curve extended above 6,600 cfs; minimum, 12 cfs Aug. 10-12, 1908, Aug. 4, 1910.

REMARKS.--Records good. Slight regulation by furnish Reservoir 1910-34 (capacity, 3,900 acre-ft prior to filling with silt). Flow regulated to some extent since 1927 by McKay Reservoir (see station 14023000). Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 794: 1906(M). WSP 1398: 1904-6, 1908-9, 1922-23, 1926, 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	114	694	160	2,120	480	1,200	1,220	522	380	380	348
2	55	108	610	155	1,710	420	1,080	1,330	603	380	370	334
3	64	104	528	155	1,400	420	1,010	1,480	944	366	385	294
4	63	102	462	150	1,200	432	988	1,480	1,660	400	380	272
5	59	104	400	150	1,040	395	1,040	1,340	1,430	400	375	260
6	55	106	361	155	876	361	1,200	1,200	1,180	370	375	236
7	67	122	375	160	771	338	1,810	1,080	988	338	370	199
8	72	128	534	220	694	348	1,790	1,070	884	380	380	181
9	78	128	631	600	631	343	1,530	1,040	771	390	361	175
10	120	138	561	2,500	764	348	1,600	924	694	432	385	169
11	138	151	528	1,710	1,470	640	1,450	828	680	432	395	166
12	108	248	492	1,280	1,480	980	1,280	844	603	405	405	172
13	97	468	438	996	1,410	1,120	1,150	964	631	395	420	169
14	93	405	405	806	1,330	996	1,060	868	659	385	456	166
15	88	330	385	701	1,330	876	1,080	736	582	380	462	169
16	86	280	361	892	1,280	771	1,070	785	516	370	468	175
17	83	264	334	1,840	1,160	666	1,090	680	468	366	438	196
18	80	260	298	2,560	1,040	596	1,070	575	444	348	432	196
19	83	276	268	3,020	956	582	964	522	474	356	410	199
20	86	272	244	4,500	820	631	964	561	415	380	395	216
21	93	272	240	2,820	736	715	1,050	516	361	410	390	244
22	100	255	230	1,960	701	757	1,080	480	330	415	390	244
23	112	245	220	1,510	659	940	1,120	462	375	405	395	230
24	125	240	210	1,280	624	1,450	1,160	420	361	410	366	83
25	142	785	200	1,160	624	1,620	1,200	450	390	405	352	68
26	145	799	190	1,160	561	1,660	1,200	528	400	395	320	68
27	140	694	180	1,260	534	1,920	1,210	673	370	370	316	72
28	135	659	175	1,240	516	1,600	1,240	729	356	370	316	65
29	128	631	170	1,160	------	1,340	1,260	624	352	370	316	68
30	122	652	165	1,140	------	1,340	1,240	561	361	375	320	74
31	118	------	160	2,220	------	1,340	------	534	------	380	316	------
TOTAL	3,006	9,340	11,049	39,620	28,437	26,425	36,186	25,504	18,804	11,958	11,839	5,508
MEAN	97.0	311	356	1,278	1,016	852	1,206	823	627	386	382	184
MAX	145	799	694	4,500	2,120	1,920	1,810	1,480	1,660	432	468	348
MIN	55	102	160	150	516	338	964	420	330	338	316	65
AC-FT	5,960	18,530	21,920	78,590	56,400	52,410	71,770	50,590	37,300	23,720	23,480	10,930

CAL YR 1970 TOTAL 288,266 MEAN 790 MAX 7,850 MIN 55 AC-FT 571,800
WTR YR 1971 TOTAL 227,676 MEAN 624 MAX 4,500 MIN 55 AC-FT 451,600

PEAK DISCHARGE (BASE, 3,600 CFS).--Jan. 20 (0530) 5,510 cfs (7.45 ft).

14032000 Butter Creek near Pine City, Oreg.

LOCATION.--Lat 45°32'40", long 119°18'40", in SW¼ sec.22, T.1 N., R.28 E., Umatilla County, on right bank 0.5 mile downstream from Mattlock Canyon 6.0 miles southeast of settlement of Pine City, 15 miles southwest of Echo, and at mile 8.4.

DRAINAGE AREA.--291 sq mi.

PERIOD OF RECORD.--April to June 1928, November 1928 to June 1929, October 1929 to September 1930, January 1931 to September 1932, February to June 1933, October 1933 to September 1941, January to June 1942, October 1942 to current year. Prior to October 1945, monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (by barometer). Prior to Oct. 1, 1944, at datum 1.1 ft higher and Oct. 1, 1944, to Sept. 6, 1949, at datum 1.0 ft higher.

AVERAGE DISCHARGE.--39 years (1929-30, 1931-32, 1933-41, 1942-71), 24.5 cfs (17,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs May 25 (gage height, 7.6 ft, from adjusted high-water mark); no flow at times.
Period of record: Maximum discharge, 3,800 cfs Feb. 21, 1949 (gage height, 12.4 ft, present datum, from floodmark), from rating curve extended above 440 cfs on basis of computation of peak flow over dam; no flow at times.

REMARKS.--Records fair. No regulation. Several small diversions for irrigation above station. Water is diverted into headwaters of Butter Creek from Fivemile Creek, a tributary of Camas Creek in John Day River basin, for irrigation below station.

REVISIONS (WATER YEARS).--WSP 1218: 1950(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	3.0	8.4	8.1	65	14	69	61	22	6.0		
2	.10	3.0	8.4	6.0	56	14	63	65	24	5.6		
3	.10	3.0	8.1	5.0	43	14	60	71	29	5.0		
4	0	2.8	7.5	4.5	44	14	59	78	27	4.6		
5	0	2.8	7.5	4.5	36	14	61	80	23	4.0		
6	.10	3.0	7.8	6.0	26	14	67	76	20	4.2		
7	.40	3.5	16	7.2	23	14	78	69	18	3.4		
8	.40	3.8	25	8.4	25	15	73	63	18	2.6		
9	.70	3.8	18	24	23	14	69	63	18	2.6		
10	.70	3.8	14	57	26	14	80	59	18	3.0		
11	.70	4.0	13	38	26	14	72	52	19	4.6		
12	.70	5.0	13	30	26	17	64	47	18	3.8		
13	.60	6.0	10	16	26	20	59	59	17	3.0		
14	.60	6.0	11	22	30	18	54	55	21	2.2		
15	.60	5.8	12	23	31	19	55	45	18	1.8		
16	.80	5.5	11	36	33	19	53	45	14	1.8		
17	.90	5.2	10	205	30	18	54	38	14	1.4		
18	1.2	5.0	9.0	208	26	17	54	34	14	.90		
19	1.4	4.6	8.4	204	26	16	48	30	15	.80		
20	2.0	4.5	8.4	188	23	18	44	26	16	.80		
21	1.8	4.5	9.4	110	22	19	49	23	13	.60		
22	1.9	4.8	9.8	79	22	22	54	22	11	.40		
23	2.8	6.0	8.7	66	21	57	54	21	8.4	.20		
24	3.0	6.9	8.4	57	20	127	68	19	7.8	0		
25	3.2	6.9	8.4	49	20	101	70	80	8.4	0		
26	3.6	7.2	8.4	43	14	138	75	29	9.0	0		
27	3.5	6.9	7.8	42	14	121	69	24	8.7	0		
28	3.4	7.2	8.4	40	14	92	65	20	8.4	0		
29	3.2	7.8	8.1	36	------	93	64	16	7.8	0		
30	3.0	7.8	8.1	36	------	93	60	16	6.9	0		
31	3.0	------	8.1	70	------	81	------	18	------	0		------
TOTAL	44.60	150.1	320.1	1,728.7	791	1,261	1,864	1,404	472.4	63.30	0	0
MEAN	1.44	5.00	10.3	55.8	28.3	40.7	62.1	45.3	15.7	2.04	0	0
MAX	3.6	7.8	25	208	65	138	80	80	29	6.0	0	0
MIN	0	2.8	7.5	4.5	14	14	44	16	6.9	0	0	0
AC-FT	88	298	635	3,430	1,570	2,500	3,700	2,780	937	126	0	0

CAL YR 1970 TOTAL 11,993.40 MEAN 32.9 MAX 646 MIN 0 AC-FT 23,790
WTR YR 1971 TOTAL 8,099.20 MEAN 22.2 MAX 208 MIN 0 AC-FT 16,060

PEAK DISCHARGE (BASE, 200 CFS .--Jan. 17 (1300) 298 cfs (3.64 ft); May 25 (1900) 1,400 cfs (7.6 ft).

Principal diversions from Umatilla River between Yoakum and Umatilla gaging stations, Oreg.

The following canals divert water from Umatilla River between Yoakum and Umatilla:

14027000 Furnish Canal, from right bank of Umatilla River in SW¼SW¼ sec.31, T.3 N., R.30 E., for irrigation in vicinity of Stanfield.

14029000 Umatilla project feed canal, from right bank of Umatilla River in SW¼ sec.22, T.3 N., R.29 E., and delivers water to Cold Springs Reservoir (capacity, 32,380 acre-ft) of Bureau of Reclamation.

14030000 Allen Canal, from right bank of Western Land Canal in SW¼ sec.16, T.3 N., R.29 E., for irrigation west of Echo.

14030500 Western Land Canal, from left bank of Umatilla River in NE¼ sec.21, T.3 N., R.29 E., for irrigation west of Echo and Stanfield; gage is 1 mile downstream from intake.

14031500 Maxwell Canal, from right bank of Umatilla River in SW¼ sec.28, T.4 N., R.28 E., for irrigation near Hermiston; at times it receives water from Cold Springs Reservoir.

14032500 West Diversion main canal, from left bank of Umatilla River in SW¼ sec.28, T.5 N., R.28 E., for irrigation near Irrigon and Boardman.

Several smaller canals also divert water between Yoakum and Umatilla, but no records for them were obtained.

Records available for water years 1921-65 (incomplete). Monthly discharge only for some periods, published in WSP 1318.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Furnish Canal	Umatilla project feed canal	Allen Canal	Western Land Canal	Maxwell Canal	West Diversion main canal
October	26	0	-	50	1,900	3,370
November	0	9,380	-	0	0	0
December	0	12,050	-	0	0	0
January	0	9,120	-	0	0	0
February	0	6,760	-	0	0	0
March	1,960	10,330	-	1,430	0	1 580
April	5,980	10,620	750	11,850	2,920	8,500
May	6,370	12,850	778	12,400	3,730	10,530
June	5,380	7,390	425	10,030	3,040	9,260
July	7,250	0	917	13,620	3,470	8,410
August	6,780	0	946	12,930	2,950	9,250
September	2,390	0	359	5,590	2,380	7,970
WTR YR 1971	36,120	78,500	-	46,020	20,400	58,860

NOTE.--No gage-height record for months of little or no flow and short periods at other times.

14033500 Umatilla River near Umatilla, Oreg.

LOCATION.--Lat 45°54'11", long 119°19'33", in SW¼NW¼ sec.21, T.5 N., R.28 E., Umatilla County, on left bank 1.6 miles downstream from West Division main canal of Umatilla project, 1.2 miles southeast of Umatilla, and at mile 2.1.

DRAINAGE AREA.--2,290 sq mi, approximately.

PERIOD OF RECORD.--October 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 330.47 ft above mean sea level. Oct. 21, 1903, to Jan. 25, 1931, nonrecording gage.

AVERAGE DISCHARGE.--44 years (1927-71), 429 cfs (310,800 acre-ft per year). Years prior to 1927 not included in computation of average discharge owing to increased regulation and diversion since 1927.

EXTREMES.--Current year: Maximum discharge, 5,050 cfs Jan. 20 (gage height, 5.80 ft); minimum, 1.2 cfs May 24.
Period of record: Maximum discharge, 19,800 cfs Jan. 30, 1965 (gage height, 10.75 ft); no flow at times.

REMARKS.--Records good. Some regulation since 1927 by McKay Reservoir (see station 14023000). Many diversions above station for irrigation of lands above and below station; Brownell Canal diverts below station. Diversions since 1908 to Cold Springs Reservoir, an off-channel reservoir (capacity, 52,380 acre-ft).

REVISIONS (WATER YEARS).--WSP 794: Drainage area. WSP 1398: 1909, 1911, 1914, 1928, 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	220	545	145	2,040	545	800	545	30	5.7	6.5	52
2	17	222	521	150	1,680	505	672	593	59	5.5	6.3	156
3	29	222	451	160	1,360	465	601	750	202	5.3	6.5	169
4	22	218	389	180	1,130	481	545	790	1,190	4.7	6.8	158
5	15	158	347	200	987	444	522	730	1,190	4.4	6.3	145
6	24	141	299	220	832	423	611	577	931	21	6.5	143
7	26	136	270	240	724	323	954	451	561	26	6.8	128
8	30	132	317	265	653	293	1,220	395	458	5.1	6.5	104
9	49	131	451	293	604	201	953	389	329	6.1	6.5	62
10	72	131	473	2,310	602	197	1,070	335	235	32	6.6	45
11	101	134	423	1,680	1,060	225	986	209	201	92	12	23
12	112	133	402	1,210	1,270	545	800	131	141	101	16	25
13	88	205	359	930	1,190	820	617	250	82	86	7.1	38
14	79	323	329	722	1,150	800	458	329	142	83	6.9	37
15	142	281	311	601	1,090	653	416	165	83	62	6.6	23
16	176	235	293	742	1,090	545	444	157	25	39	18	17
17	198	201	265	1,330	984	458	437	193	3.4	21	43	19
18	197	185	245	2,370	883	359	416	52	3.2	14	52	21
19	191	185	221	2,760	963	329	353	5.1	3.2	13	51	20
20	192	197	225	3,830	859	341	305	2.4	2.7	3.4	36	21
21	196	181	217	3,270	780	389	347	2.3	6.1	2.6	13	19
22	201	177	209	2,140	721	437	383	5.5	5.7	3.0	20	29
23	205	173	201	1,660	691	505	416	6.5	6.1	7.1	46	24
24	218	299	189	1,310	646	820	458	1.5	5.5	7.7	49	15
25	238	317	181	1,140	638	1,240	505	2.1	5.9	11	35	37
26	250	682	165	1,060	618	1,220	521	114	5.9	22	34	44
27	245	601	157	1,150	585	1,570	537	54	5.7	17	7.9	40
28	249	537	145	1,160	568	1,390	553	213	5.7	21	7.7	49
29	245	521	142	1,090	------	1,080	569	165	5.9	7.1	7.3	66
30	237	497	138	1,000	------	942	585	110	7.7	6.5	12	64
31	234	------	142	1,600	------	931	------	25	------	6.8	23	------
TOTAL	4,287.1	7,775	9,022	36,918	26,398	19,476	18,054	7,747.4	5,931.7	742.0	568.8	1,793
MEAN	138	259	291	1,191	943	628	602	250	198	23.9	18.3	59.8
MAX	250	682	545	3,830	2,040	1,570	1,220	790	1,190	101	52	169
MIN	9.1	131	138	145	568	197	305	1.5	2.7	2.6	6.3	15
AC-FT	8,500	15,420	17,900	73,230	52,360	38,630	35,810	15,370	11,770	1,470	1,130	3,560

CAL YR 1970 TOTAL 203,921.2 MEAN 559 MAX 7,080 MIN 2.2 AC-FT 404,500
WTR YR 1971 TOTAL 138,713.0 MEAN 380 MAX 3,830 MIN 1.5 AC-FT 275,100

PEAK DISCHARGE (BASE, 3,100 CFS).--Jan. 20 (1430) 5,050 cfs (5.80 ft).

14034500 Willow Creek at Heppner, Oreg.

LOCATION.--Lat 45°21'02", long 119°32'56", in SE¼NW¼ sec.35, T.2 S., R.26 E., Morrow County, on right bank at Heppner, 100 ft upstream from Court Street bridge, 800 ft southeast of Morrow County courthouse, 0.3 mile downstream from Balm Fork and at mile 52.2.

DRAINAGE AREA.--87 sq mi, approximately.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,952.73 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 18.2 cfs (13,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 84 cfs Jan. 19 (gage height, 2.35 ft); maximum gage height, 6.46 ft May 25 (backwater from Shobe Canyon); no flow part of each day Sept. 19, 20, 23, 24.

Period of record: Maximum discharge, 812 cfs May 10, 1957 (gage height, 6.15 ft), from rating curve extended above 230 cfs; maximum gage height, 6.46 ft May 25, 1971 (backwater from Shobe Canyon); no flow at times.

Maximum discharge, about 36,000 cfs June 14, 1903, result of slope-area measurement (see WSP 96). Discharge for flood of Feb. 22, 1949, was 1,700 cfs, result of slope-area measurement.

REMARKS.--Records fair. Many diversions for irrigation above station. Part of flow of Ditch Creek (John Day River basin) is diverted to Willow Creek above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	2.7	6.9	4.6	20	6.0	32	52	19	5.7	.40	.36
2	.11	2.7	7.2	4.2	20	7.2	31	48	18	5.2	.31	.23
3	.12	3.3	5.9	4.2	18	9.0	31	41	20	4.8	.52	.23
4	.12	4.4	6.6	4.0	18	8.1	29	36	19	4.6	.71	.15
5	.12	4.4	7.5	4.2	15	7.2	30	32	18	4.6	.63	.14
6	.14	5.2	8.1	4.6	10	6.4	34	35	16	4.6	.71	.14
7	.14	5.5	6.6	5.0	10	8.1	41	33	16	4.4	.78	.12
8	.14	5.5	7.2	5.9	10	7.2	39	28	16	4.2	.86	.11
9	.15	5.5	6.9	8.7	11	7.5	37	30	13	4.2	.48	.11
10	.14	5.9	7.2	9.3	12	7.5	39	27	17	6.6	.71	.07
11	.15	6.6	6.9	8.7	11	8.4	37	25	18	5.9	.63	.08
12	.31	8.7	5.2	8.1	11	9.6	35	30	13	4.8	.56	.09
13	.40	7.2	5.3	8.7	11	9.0	32	36	17	4.4	.71	.08
14	.48	6.2	5.6	11	13	8.4	31	30	19	4.0	.52	.07
15	.52	5.9	6.2	9.3	13	8.4	29	28	16	3.6	.71	.08
16	.63	5.5	5.9	12	13	7.8	26	29	14	3.3	.71	.07
17	.65	5.2	5.7	29	12	8.1	28	25	13	2.2	.78	.05
18	.65	5.2	5.7	42	12	7.5	27	24	12	1.4	1.0	.05
19	.52	5.2	6.6	55	11	8.4	25	22	12	1.3	.56	.04
20	.71	5.0	5.9	66	11	8.4	26	22	10	1.2	.52	.02
21	1.6	4.8	5.5	45	8.7	8.4	30	20	9.0	1.2	.48	.05
22	2.4	4.5	5.2	33	10	9.3	31	13	8.4	1.2	1.4	.04
23	2.6	4.8	5.4	28	8.7	17	39	13	7.8	1.2	.52	.04
24	3.6	7.2	5.4	24	7.8	29	40	10	7.5	1.2	.40	.02
25	3.1	6.6	4.2	21	7.5	31	44	22	8.4	1.2	.40	.08
26	3.1	5.9	4.1	20	6.9	37	46	19	8.4	1.1	.23	.09
27	2.6	6.4	4.5	18	6.8	37	45	16	7.2	.93	.15	.09
28	2.4	6.9	5.0	17	6.4	34	42	14	6.9	.86	.15	.09
29	2.6	6.4	5.9	16	------	34	40	13	6.6	.78	.12	.14
30	2.7	7.5	5.7	16	------	35	47	13	5.9	.63	.12	.11
31	2.7	------	5.9	19	------	34	------	15	------	.48	.14	------
TOTAL	35.71	166.8	185.9	561.5	324.8	463.9	1,043	801	392.1	91.78	16.92	3.04
MEAN	1.15	5.56	6.00	18.1	11.6	15.0	34.8	25.8	13.1	2.96	.55	.10
MAX	3.6	8.7	8.1	66	20	37	47	52	20	6.6	1.4	.36
MIN	.11	2.7	4.1	4.0	6.4	6.0	25	10	5.9	.48	.12	.02
AC-FT	71	331	369	1,110	644	920	2,070	1,590	778	182	34	6.0

CAL YR 1970 TOTAL 7,244.00 MEAN 19.8 MAX 355 MIN .07 AC-FT 14,370
WTR YR 1971 TOTAL 4,086.45 MEAN 11.2 MAX 66 MIN .02 AC-FT 8,110

PEAK DISCHARGE (BASE, 170 CFS).--No peak above base.

WILLOW CREEK BASIN

14034800 Rhea Creek near Heppner, Oreg.

LOCATION.--Lat 45°15'33", long 119°37'22", in SW¼SE¼ sec.31, T.3 S., R.26 E., Morrow County, on right bank 1.5 miles downstream from Sanford Canyon, 8 miles southwest of Heppner, and at mile 25.0.

DRAINAGE AREA.--120 sq mi, approximately.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,250 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 17.7 cfs (12,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 240 cfs Jan. 17 (gage height, 4.34 ft); maximum gage height, 4.36 ft Jan. 18; no flow Aug. 2, 8-18.
Period of record: Maximum discharge, 1,280 cfs June 10, 1969 (gage height, 7.05 ft) from rating curve extended above 130 cfs on basis of slope-area measurement at gage height 6.72 ft; maximum gage height, 7.41 ft Dec. 22, 1964; no flow at times.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.5	5.4	5.4	27	12	39	38	15	2.9	.05	1.1
2	1.3	3.3	6.5	4.8	25	11	36	36	14	2.5	0	2.9
3	1.3	3.3	5.0	4.9	22	10	33	34	14	2.3	.24	2.7
4	1.3	3.3	6.1	4.6	22	9.5	30	33	13	2.1	.16	2.3
5	1.4	3.5	6.4	5.0	19	9.5	28	32	12	2.3	.09	1.9
6	1.7	5.2	7.8	5.4	14	8.1	27	30	12	1.5	.10	1.5
7	2.1	5.0	10	5.8	16	9.1	27	27	11	1.7	.03	1.7
8	2.2	5.2	11	7.4	16	9.5	25	25	10	1.4	0	1.5
9	2.9	4.9	11	11	15	9.5	24	22	9.1	1.5	0	1.7
10	3.3	5.0	8.9	14	17	9.5	24	21	11	6.3	0	1.2
11	2.5	5.5	11	14	16	11	23	19	13	4.0	0	1.1
12	2.1	7.3	8.0	13	14	15	22	20	10	2.7	0	1.1
13	2.0	5.4	7.4	15	14	14	20	27	11	2.7	0	.84
14	2.0	4.6	8.0	17	14	13	19	22	11	2.1	0	.95
15	2.0	4.6	8.8	20	14	14	18	21	9.1	1.4	0	.56
16	2.0	4.6	9.7	57	13	14	17	22	8.1	1.2	0	.10
17	2.0	4.6	7.5	159	13	14	21	18	7.4	.84	0	.16
18	2.0	4.6	7.4	176	13	13	20	17	7.7	.64	0	.10
19	2.9	4.6	7.2	166	13	14	18	16	8.1	.84	.16	.10
20	2.9	4.6	6.9	141	12	14	19	15	7.0	.74	.13	.13
21	3.9	4.3	7.1	83	11	15	24	14	6.0	.74	.08	.16
22	4.4	3.1	7.2	58	12	16	28	13	5.2	.56	.24	.16
23	4.2	4.0	7.0	47	12	33	46	12	4.6	.35	.84	.24
24	4.6	6.4	6.9	40	12	57	57	11	4.0	.29	1.2	.35
25	3.8	6.2	6.5	34	10	55	62	24	4.9	.29	1.1	.42
26	4.0	5.3	5.0	32	8.4	77	65	13	6.0	.16	.84	.42
27	3.4	5.1	5.4	30	10	63	60	12	4.9	.10	.56	.64
28	3.3	5.5	6.2	27	9.5	53	54	11	4.3	.06	.35	.84
29	3.4	5.0	6.7	25	-------	50	47	9.5	4.0	.10	.35	1.2
30	3.3	6.9	6.6	24	-------	49	42	9.5	3.1	.13	.24	1.5
31	3.5	-------	7.4	27	-------	43	-------	13	-------	.10	.20	-------
TOTAL	83.0	144.4	232.0	1,273.3	413.9	744.7	975	637.0	260.5	44.54	6.96	29.57
MEAN	2.68	4.81	7.48	41.1	14.8	24.0	32.5	20.5	8.68	1.44	.22	.99
MAX	4.6	7.3	11	176	27	77	65	38	15	6.3	1.2	2.9
MIN	1.3	3.1	5.0	4.6	8.4	8.1	17	9.5	3.1	.06	0	.10
AC-FT	165	286	460	2,530	821	1,480	1,930	1,260	517	88	14	59

CAL YR 1970 TOTAL 7,573.52 MEAN 20.7 MAX 382 MIN 0 AC-FT 15,020
WTR YR 1971 TOTAL 4,844.87 MEAN 13.3 MAX 176 MIN 0 AC-FT 9,610

PEAK DISCHARGE (BASE, 230 CFS).--Jan. 17 (2400) 240 cfs (4.34 ft).

14036000 Willow Creek near Arlington, Oreg.

LOCATION.--Lat 45°45'12", long 120°00'35", in NE¼SW¼ sec.12, T.3 N., R.22 E., Gilliam County, on right bank at bridge on discontinued highway, 3.8 miles downstream from Eightmile Canyon, 10 miles east of Arlington, and at mile 3.7.

DRAINAGE AREA.--850 sq mi, approximately.

PERIOD OF RECORD.--March to July 1906, August 1960 to current year. Records for March to August 1905 at site just upstream from Eightmile Canyon not equivalent owing to diversions and inflow.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 291.26 ft above mean sea level. Mar. 1 to July 21, 1906, nonrecording gage at site 2.6 miles upstream at different datum. Aug. 24, 1960, to July 1, 1964, water-stage recorder at site 430 ft downstream at same datum.

AVERAGE DISCHARGE.--11 years, 27.7 cfs (20,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 347 cfs May 26 (gage height, 4.92 ft); no flow at times.
Period of record: Maximum discharge, 14,700 cfs Dec. 22, 1964 (gage height, 11.05 ft, from floodmark), from rating curve extended above 1,900 cfs on basis of slope-area measurement of peak flow; no flow at times.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station. Records given herein do not include water diverted for irrigation below gage, in which canal the following discharge measurements, in cubic feet per second, were made in the 1970 water year:

Jan. 18	3.22
Apr. 7	1.46
May 20	0.03

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.37	.79	9.6	6.4	3.5	12	53	20	2.6	0	1.8
2	.62	.40	.83	7.4	6.8	4.2	12	43	17	1.6	.02	2.3
3	.66	.33	.75	6.4	9.6	4.9	14	45	11	3.0	.05	1.8
4	.66	.48	.50	6.0	7.4	4.9	14	45	18	5.0	.03	2.4
5	.56	.57	.13	5.9	8.5	4.7	14	47	21	2.8	.03	2.4
6	.62	.61	.19	6.6	6.8	4.8	14	56	30	.14	.01	4.4
7	.58	.62	.16	7.8	6.8	5.0	11	46	32	0	0	2.9
8	.62	.53	.13	11	7.4	4.0	12	28	26	0	0	4.3
9	.65	.47	5.4	12	7.9	4.7	18	25	14	3.0	.03	4.8
10	.74	.45	3.3	13	9.0	5.3	15	26	10	6.6	0	4.4
11	.70	.73	4.5	18	10	5.0	17	16	10	8.4	0	5.4
12	.74	1.0	4.3	13	9.6	3.8	14	8.5	10	5.6	.15	5.7
13	.74	.97	5.2	13	8.5	2.6	13	13	10	2.8	0	3.3
14	.75	.88	4.7	9.6	7.4	4.0	12	15	9.6	1.5	0	4.2
15	.73	.88	6.4	18	7.4	3.6	11	17	9.6	.13	.18	1.1
16	.54	.90	9.0	20	4.4	2.9	8.7	28	9.6	.78	.17	.66
17	.42	.88	7.8	72	3.2	2.6	8.0	37	9.6	0	0	.01
18	.38	.88	6.6	178	3.2	4.8	9.0	23	9.0	0	0	.14
19	.34	.88	4.9	188	2.9	3.2	10	18	9.0	0	0	.06
20	.33	.80	4.8	228	4.8	2.0	9.3	12	8.5	0	0	.54
21	.40	.74	7.7	172	3.6	2.0	9.2	14	8.5	0	.03	.56
22	.43	.73	8.7	109	3.6	3.2	11	13	7.9	0	0	.80
23	.34	.75	8.6	76	3.4	4.4	13	6.4	7.9	0	0	0
24	.47	1.1	7.3	60	4.3	3.2	25	9.6	7.4	0	0	0
25	.44	1.1	7.0	41	2.4	2.9	60	18	7.4	.13	0	.28
26	.33	1.4	7.2	35	2.2	3.2	77	172	6.8	0	1.6	.98
27	.33	1.2	7.3	37	2.5	4.0	75	70	6.8	0	.04	.99
28	.33	1.0	7.9	34	2.8	4.3	75	54	6.4	0	.07	1.4
29	.33	.85	12	15	------	8.0	69	43	5.3	0	.36	1.2
30	.37	.78	11	16	------	9.7	61	35	4.8	0	0	.72
31	.38	------	11	6.4	------	8.7	------	28	------	0	.05	------
TOTAL	16.17	23.28	166.08	1,444.7	162.8	134.1	723.2	1,064.5	363.1	44.08	2.82	59.54
MEAN	.52	.78	5.36	46.6	5.81	4.33	24.1	34.3	12.1	1.42	.091	1.98
MAX	.75	1.4	12	228	10	9.7	77	172	32	8.4	1.6	5.7
MIN	.33	.33	.13	5.9	2.2	2.0	8.0	6.4	4.8	0	0	0
AC-FT	32	46	329	2,870	323	266	1,430	2,110	720	87	5.6	118

CAL YR 1970 TOTAL 15,433.88 MEAN 42.3 MAX 1,200 MIN 0 AC-FT 30,610
WTR YR 1971 TOTAL 4,204.37 MEAN 11.5 MAX 228 MIN 0 AC-FT 8,340

PEAK DISCHARGE (BASE, 400 CFS).--No peak above base.

14037500 Strawberry Creek above Slide Creek, near Prairie City, Oreg.

LOCATION.--Lat 44°20'30", long 118°39'20", in SE¼NW¼ sec.20, T.14 S., R.34 E., Grant County, on left bank 100 ft upstream from Slide Creek, 8.5 miles south of Prairie City, and at mile 9.0.

DRAINAGE AREA.--7.00 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1944, published as "above South Fork, near Prairie City."

GAGE.--Water-stage recorder and log control. Datum of gage is 4,909.57 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 12.8 cfs 24.83 inches per year, 9,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 98 cfs May 28 (gage height, 2.21 ft); minimum daily, 2.5 cfs Jan. 4.
Period of record: Maximum discharge, 172 cfs June 8, 1948 (gage height, 2.23 ft); maximum gage height, 3.23 ft May 24, 1956 (backwater from logs); minimum discharge, 1.0 cfs Mar. 20, 1955.

REMARKS.--Records fair. Flow affected by natural storage in Strawberry Lake. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1488: 1932-33. WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.1	10	2.9	7.5	5.6	4.3	12	74	43	16	6.0
2	3.4	3.1	10	2.7	7.9	5.7	4.3	16	64	43	16	6.0
3	3.3	3.1	9.6	2.6	7.9	5.6	4.3	22	57	42	15	5.7
4	3.3	3.3	9.2	2.5	7.9	5.6	4.3	30	49	41	14	5.4
5	3.5	3.9	9.2	2.7	7.5	5.4	4.5	31	46	40	14	5.4
6	3.5	3.6	9.2	2.7	7.1	5.3	6.0	30	46	43	14	5.1
7	3.4	3.6	8.8	2.7	6.7	5.2	9.6	30	50	37	14	5.1
8	3.4	3.7	8.8	3.1	6.3	4.9	10	34	57	36	13	4.8
9	3.6	4.0	7.9	2.9	6.0	4.9	10	36	64	35	13	4.8
10	3.6	3.8	7.5	2.9	6.0	4.9	9.6	37	68	34	12	4.8
11	3.5	4.3	7.1	2.9	5.6	4.8	9.6	38	66	33	12	4.8
12	3.4	4.1	6.7	2.9	6.0	4.6	9.2	46	66	32	12	4.5
13	3.3	3.7	6.3	2.9	6.3	4.6	8.4	58	72	30	11	4.5
14	3.3	3.9	6.0	2.9	7.1	4.6	7.9	62	78	30	11	4.5
15	3.3	3.8	5.6	2.9	7.9	4.3	8.8	64	76	29	10	4.5
16	3.3	3.7	5.2	3.3	8.4	4.3	9.2	64	74	28	9.8	4.5
17	3.1	3.6	4.9	4.1	8.4	4.3	9.2	62	72	27	9.8	4.3
18	3.2	3.5	4.6	5.2	8.4	4.4	9.2	56	69	26	9.0	4.3
19	3.2	3.6	4.3	6.5	7.9	4.1	8.8	52	71	25	9.0	4.3
20	3.2	3.4	4.3	8.5	7.5	4.1	8.8	46	72	24	8.6	4.3
21	3.2	3.2	4.0	11	7.3	4.1	8.4	43	78	24	8.6	4.3
22	3.1	3.3	4.0	14	7.1	4.1	8.4	40	82	22	8.2	4.0
23	3.4	5.0	3.8	12	6.8	4.1	7.9	38	85	22	7.8	4.0
24	3.1	16	3.8	11	6.7	3.9	7.9	40	82	21	7.8	4.0
25	3.1	17	3.6	10	6.3	4.0	7.9	44	82	20	7.4	4.0
26	3.1	13	3.6	9.6	6.1	4.4	7.5	53	84	19	7.0	4.0
27	3.0	12	3.3	9.2	6.0	4.3	7.5	66	78	18	7.0	4.0
28	3.1	11	3.3	8.4	5.9	4.3	7.5	82	66	18	6.6	4.0
29	3.1	10	3.3	7.9	------	4.3	8.4	84	54	17	6.6	4.0
30	3.1	10	3.1	7.5	------	4.3	9.2	84	46	17	6.3	4.0
31	3.1	------	3.1	7.5	------	4.3	------	82	------	17	6.3	------
TOTAL	101.6	173.3	184.1	177.9	196.5	143.3	236.6	1,482	2,028	890	322.8	137.9
MEAN	3.28	5.78	5.94	5.74	7.02	4.62	7.89	47.8	67.6	28.7	10.4	4.60
MAX	3.6	17	10	14	8.4	5.7	10	84	85	43	16	6.0
MIN	3.0	3.1	3.1	2.5	5.6	3.9	4.3	12	46	17	6.3	4.0
CFSM	.47	.83	.85	.82	1.00	.66	1.13	6.83	9.66	4.10	1.49	.66
IN.	.54	.92	.98	.95	1.04	.76	1.26	7.88	10.78	4.73	1.72	.73
AC-FT	202	344	365	353	390	284	469	2,940	4,020	1,770	640	274

CAL YR 1970 TOTAL 6,249.5 MEAN 17.1 MAX 130 MIN 2.7 CFSM 2.44 IN 33.21 AC-FT 12,400
WTR YR 1971 TOTAL 6,074.0 MEAN 16.6 MAX 85 MIN 2.5 CFSM 2.37 IN 32.28 AC-FT 12,050

14038530 John Day River near John Day, Oreg.

LOCATION.--Lat 44°25'10", long 118°54'10", in SE¼SE¼ sec.19, T.13 S., R.32 E., Grant County, on left bank 800 ft downstream from Dog Creek, 2.5 miles east of John Day, and at mile 251.0.

DRAINAGE AREA.--386 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,130.56 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,000 cfs Jan. 17 (gage height, 8.92 ft, from floodmarks); minimum, 10 cfs Aug. 22, 26, 27.
Period of record: Maximum discharge, 5,830 cfs June 9, 1969 (gage height, 10.80 ft, from floodmark); minimum, 3.5 cfs Aug. 26-28, 1969.

REMARKS.--Records good. Some regulation from irrigation ditches upstream. Many diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	100	162	97	350	170	330	377	636	220	89	20
2	68	97	160	86	338	160	310	465	552	205	83	35
3	63	94	147	86	306	170	302	588	455	186	73	42
4	65	93	147	82	298	183	302	714	408	165	66	47
5	68	92	154	86	266	174	322	744	359	160	62	49
6	77	103	200	94	238	163	368	672	350	152	60	50
7	79	106	207	108	230	177	525	606	359	145	60	47
8	77	115	201	430	246	174	485	636	359	138	52	50
9	85	134	197	850	223	177	450	630	372	140	44	46
10	88	125	173	539	246	180	460	600	422	209	33	44
11	81	136	176	376	242	206	422	576	436	174	35	40
12	79	165	144	308	242	262	391	630	404	155	32	41
13	74	131	147	277	262	234	364	720	422	145	28	40
14	74	118	149	268	270	209	355	654	408	142	24	35
15	74	115	147	331	286	220	373	624	377	132	23	35
16	74	111	141	610	270	202	364	714	354	130	25	42
17	72	107	118	2,120	266	199	382	606	342	125	23	49
18	81	117	90	2,330	258	189	355	520	377	115	24	52
19	97	114	97	1,350	250	192	326	450	408	122	21	53
20	90	111	102	1,190	238	195	334	404	372	125	15	56
21	95	105	110	660	223	206	355	359	364	118	12	62
22	100	94	120	490	230	227	330	318	382	111	11	65
23	114	138	110	426	220	298	355	298	377	111	12	60
24	119	330	113	382	216	355	346	294	350	104	12	62
25	110	338	100	350	202	330	334	330	390	90	12	65
26	109	235	100	368	192	455	322	460	413	81	11	78
27	101	200	110	350	199	400	318	612	372	92	11	90
28	101	218	118	326	183	364	322	642	346	85	12	98
29	101	179	118	302	-------	338	330	846	302	87	13	105
30	100	188	118	318	-------	355	338	786	258	89	12	107
31	101	-------	123	355	-------	346	-------	678	-------	89	14	-------
TOTAL	2,683	4,309	4,299	15,945	6,990	7,510	10,870	17,553	11,726	4,142	1,004	1,665
MEAN	86.5	144	139	514	250	242	362	566	391	134	32.4	55.5
MAX	119	338	207	2,330	350	455	525	846	636	220	89	107
MIN	63	92	90	82	183	160	302	294	258	81	11	20
AC-FT	5,320	8,550	8,530	31,630	13,860	14,900	21,560	34,820	23,260	8,220	1,990	3,300

CAL YR 1970 TOTAL 80,012.8 MEAN 219 MAX 1,640 MIN 7.6 AC-FT 158,700
WTR YR 1971 TOTAL 88,696.0 MEAN 243 MAX 2,330 MIN 11 AC-FT 175,900

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 8	2400	6.30	1,600	5- 5	0400	5.28	768
1-17	2200	8.92	4,000	5-29	1730	5.41	882

JOHN DAY RIVER BASIN

14040500 John Day River at Picture Gorge, near Dayville, Oreg.

LOCATION.--Lat 44°31'15", long 119°37'30", in SW¼ sec.17, T.12 S., R.26 E., Grant County, on right bank 0.7 mile upstream from Rock Creek, 5.5 miles northwest of Dayville, and at mile 205.1.

DRAINAGE AREA.--1,680 sq mi, approximately.

PERIOD OF RECORD.--April 1926 to current year. Monthly discharge only April 1926, published in WSP 1318.

GAGE.--Water-stage recorder and concrete-filled bag control. Datum of gage is 2,229.84 ft above mean sea level. Prior to Oct. 11, 1926, nonrecording gage and Oct. 11, 1926, to Sept. 30, 1930, water-stage recorder at same site at datum 2.50 ft higher. Oct. 1, 1930 to Aug. 28, 1970 at datum 2.00 ft higher.

AVERAGE DISCHARGE.--45 years, 462 cfs (334,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,040 cfs Jan. 18 (gage height, 12.56 ft); minimum, 10 cfs Aug. 20, 21.
Period of record: Maximum discharge, 8,170 cfs Dec. 22, 1964 (gage height, 14.97 ft); minimum, 1.0 cfs for several days in August and September 1930, Aug. 8, 9, 1936, Sept. 9, 1966.

REMARKS.--Records excellent. No regulation. Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1218: 1950. WSP 1348: Drainage area. WSP 1448: 1926, 1928, 1932(M), 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	205	505	294	1,190	600	1,340	1,270	1,160	405	24	13
2	112	203	454	212	1,200	536	1,290	1,460	1,130	356	107	13
3	117	199	423	182	1,100	652	1,260	1,790	980	335	60	13
4	124	197	409	191	1,070	644	1,290	2,090	885	305	44	15
5	117	198	382	210	980	576	1,370	2,150	785	288	40	16
6	112	213	452	247	840	517	1,570	1,960	708	263	49	16
7	124	213	628	293	790	580	1,950	1,720	680	255	45	17
8	127	214	639	389	805	544	1,950	1,770	663	240	41	21
9	130	232	609	1,830	790	548	1,820	1,780	648	243	34	20
10	141	249	519	1,390	815	540	1,890	1,630	692	280	25	21
11	138	253	494	964	910	580	1,770	1,540	795	283	20	21
12	136	337	406	695	900	692	1,600	1,510	708	258	17	23
13	140	327	346	536	995	696	1,460	1,610	708	240	16	23
14	140	283	407	536	1,050	636	1,400	1,580	692	215	16	21
15	138	256	406	574	1,100	628	1,480	1,450	624	198	15	21
16	141	246	406	1,190	1,060	596	1,480	1,510	552	187	15	21
17	149	240	344	3,580	1,030	556	1,520	1,380	517	182	13	22
18	147	241	264	5,740	980	544	1,430	1,220	520	155	11	23
19	171	249	249	4,730	945	552	1,320	1,100	664	157	11	26
20	183	241	269	4,750	885	568	1,300	1,020	584	165	10	25
21	187	234	311	2,860	820	604	1,380	940	544	135	10	30
22	200	223	342	2,120	835	720	1,310	860	544	93	11	68
23	223	222	314	1,760	805	1,190	1,330	790	532	84	11	71
24	249	689	305	1,510	770	1,420	1,340	735	528	85	14	77
25	239	1,160	301	1,330	765	1,330	1,280	750	520	82	16	68
26	232	759	277	1,240	684	2,130	1,220	860	596	76	14	80
27	223	601	304	1,220	700	1,810	1,180	1,030	588	59	13	90
28	213	610	296	1,140	648	1,540	1,180	1,080	568	36	13	116
29	211	561	304	1,070	-------	1,440	1,170	1,230	513	25	12	167
30	208	532	294	1,060	-------	1,490	1,200	1,370	464	24	12	180
31	207	-------	321	1,130	-------	1,463	-------	1,220	-------	23	13	-------
TOTAL	5,090	10,384	11,980	44,913	25,462	26,919	43,080	42,405	20,029	5,732	752	1,338
MEAN	164	346	386	1,449	909	868	1,436	1,368	668	185	24.3	44.6
MAX	249	1,160	639	5,740	1,200	2,130	1,950	2,150	1,160	405	107	180
MIN	111	197	249	182	648	517	1,170	735	464	23	10	13
AC-FT	10,100	20,600	23,760	89,080	50,500	53,390	85,450	84,110	39,730	11,370	1,490	2,650

CAL YR 1970 TOTAL 231,654 MEAN 633 MAX 5,840 MIN 12 AC-FT 458,300
WTR YR 1971 TOTAL 238,084 MEAN 652 MAX 5,740 MIN 10 AC-FT 472,200

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0130	7.24	1,400	4- 7	1500	8.22	2,090
1- 9	0800	8.40	2,210	5- 5	0730	8.37	2,200
1-18	1500	12.56	6,040	5-30	0300	7.22	1,620
3-26	0930	8.50	2,290				

14042500 Camas Creek near Ukiah, Oreg.

LOCATION.--Lat 45°09'25", long 118°49'10", in SE¼SE¼ sec.3, T.5 S., R.32 E., Umatilla County, on right bank 1.2 miles upstream from Cable Creek, 6 miles east of Ukiah, and at mile 19.0.

DRAINAGE AREA.--121 sq mi.

PERIOD OF RECORD.--May 1914 to September 1917, November 1919 to July 1920, November 1920 to June 1924, March 1932 to June 1940(fragmentary), November 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "above Cable Creek, near Ukiah" 1914-17, 1919-24.

GAGE.--Water-stage recorder. Datum of gage is 3,588.61 ft above mean sea level (levels by State Highway Department). May 1, 1914, to June 30, 1924, nonrecording gage and Mar. 1, 1932, to July 2, 1940, water-stage recorder at site 1.2 miles downstream at different datum.

AVERAGE DISCHARGE.--35 years (1914-17, 1921-23, 1941-71), 95.8 cfs (69,410 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Jan. 19 (gage height, 3.21 ft); maximum gage height, 3.76 ft (backwater from ice); minimum discharge, 2.6 cfs Aug. 19, 20.

Period of record: Maximum discharge, 3,840 cfs Jan. 30, 1965 (gage height, 5.21 ft); maximum gage height, 5.24 ft Feb. 3, 1963 (ice jam); minimum discharge recorded, 1 cfs Aug. 9, 1932, June 24 to July 2, 1940.

REMARKS.--Records good except those for November to January, which are poor. No regulation. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1448: 1916, 1920, 1922(M), 1924.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	21	80	40	342	84	231	275	102	23	5.4	5.0
2	5.7	21	70	30	284	72	228	345	102	21	6.0	8.4
3	5.3	19	70	28	224	64	232	424	111	20	5.3	8.3
4	5.1	21	64	30	192	58	248	442	122	19	5.0	5.8
5	5.6	25	60	35	160	50	302	397	118	18	5.2	4.8
6	6.4	30	70	45	111	50	422	337	113	17	4.8	4.5
7	6.8	29	100	60	100	52	701	286	109	16	4.6	4.4
8	6.8	28	150	100	100	52	506	299	109	15	4.5	4.2
9	12	28	140	230	110	53	492	318	98	16	4.2	4.2
10	16	32	120	230	130	53	503	279	102	25	4.0	3.9
11	12	58	100	180	170	58	413	244	107	19	3.8	3.5
12	9.7	60	75	130	199	70	341	250	94	16	3.6	3.5
13	8.6	48	66	110	220	64	300	287	100	14	3.4	3.5
14	8.1	37	72	100	222	58	300	237	92	13	3.4	3.4
15	7.6	31	76	110	280	57	315	195	82	12	3.4	3.5
16	7.4	34	80	210	243	48	282	205	71	11	3.8	3.5
17	7.1	32	70	350	213	46	281	176	64	11	3.6	3.5
18	11	30	52	770	186	48	257	146	64	9.8	3.2	3.5
19	24	35	40	798	165	51	238	129	73	10	3.0	3.5
20	19	36	40	671	148	52	241	114	60	9.7	3.0	3.8
21	19	30	45	405	128	58	264	100	54	9.3	3.0	4.2
22	21	24	52	287	129	80	289	91	50	8.6	3.7	3.9
23	20	26	52	234	116	198	344	85	45	7.9	4.3	3.7
24	26	150	50	191	124	286	344	88	41	7.4	4.0	3.6
25	31	200	47	172	112	250	318	104	45	7.3	3.6	4.3
26	28	140	45	164	104	423	302	126	41	7.5	3.4	7.5
27	26	110	47	155	99	343	277	125	35	6.9	3.3	8.6
28	22	110	50	143	91	259	265	122	33	6.6	3.3	6.6
29	20	100	54	135	------	280	258	118	30	6.1	3.2	8.1
30	20	100	54	245	------	343	256	102	27	5.9	3.4	9.0
31	20	------	54	378	------	265	------	98	------	5.4	3.7	------
TOTAL	442.6	1,645	2,145	6,766	4,702	3,925	9,750	6,544	2,294	394.4	122.1	148.4
MEAN	14.3	54.8	69.2	218	168	127	325	211	76.5	12.7	3.94	4.95
MAX	31	200	150	798	342	423	701	442	122	25	6.0	9.0
MIN	5.1	19	40	28	91	46	228	85	27	5.4	3.0	3.4
AC-FT	878	3,260	4,250	13,420	9,330	7,790	19,340	12,980	4,550	782	242	294

CAL YR 1970 TOTAL 34,692.5 MEAN 95.0 MAX 1,190 MIN 2.6 AC-FT 68,810
WTR YR 1971 TOTAL 38,878.5 MEAN 107 MAX 798 MIN 3.0 AC-FT 77,120

PEAK DISCHARGE (BASE, 550 CFS).--Jan. 19 (2030) 1,020 cfs (3.21 ft); Apr. 7 (0330) 805 cfs (2.95 ft).

NOTE.--No gage-height record Oct. 30 to Dec. 10.

14043560 Snipe Creek near Ukiah, Oreg.

LOCATION.--Lat 45°11'05", long 118°56'20", in SW¼SW¼ sec.26, T.4 S., R.31 E., Umatilla County, on left bank at northern tip of oxbow in creek, 3.5 miles north of Ukiah and at mile 1.4.

DRAINAGE AREA.--37 sq mi, approximately.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,430 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 481 cfs Jan. 19 (gage height, 5.15 ft); no flow at times.
Period of record: Maximum discharge, 579 cfs Jan. 23, 1970 (gage height, 5.33 ft); no flow at times.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.42	1.3	1.8	75	10	42	18	5.9	1.4	.02	0
2	.14	.39	1.1	1.5	52	8.6	41	16	8.8	1.2	.02	0
3	.12	.36	1.0	1.6	44	8.6	42	15	9.6	1.1	.07	0
4	.14	.36	1.1	1.4	32	9.0	42	13	9.2	1.1	.11	.05
5	.15	.48	1.3	1.5	31	8.0	44	12	7.1	1.0	.04	.14
6	.16	.68	2.0	1.6	32	8.6	51	10	5.3	.94	.03	.08
7	.21	.73	9.0	1.8	28	9.2	57	8.8	4.6	.88	.02	.07
8	.23	.78	8.4	1.9	25	11	42	8.4	4.6	.83	.02	.06
9	.34	.68	7.7	9.2	20	11	41	7.4	3.6	.94	.01	.04
10	.42	.63	6.5	9.0	49	21	42	5.9	3.8	1.6	.01	.04
11	.34	1.0	5.0	20	34	37	34	5.0	4.6	1.2	.01	.02
12	.27	1.1	3.0	18	34	50	30	4.6	3.2	1.0	.01	.02
13	.25	.83	2.6	16	41	28	25	6.8	4.6	.83	.01	.01
14	.23	.73	2.7	14	38	30	23	5.0	4.2	.73	.01	.01
15	.23	.68	2.8	20	48	23	22	4.8	2.8	.63	.01	.01
16	.21	.59	2.8	45	34	20	20	5.6	2.3	.63	0	.01
17	.20	.59	2.8	100	28	18	25	4.6	2.0	.51	0	.01
18	.31	.59	2.6	213	24	14	23	3.8	2.4	.42	0	.01
19	.68	.59	2.5	325	22	17	18	3.6	9.5	.39	0	.01
20	.59	.55	2.4	169	23	33	18	3.8	4.2	.45	0	.05
21	.51	.48	2.7	85	24	34	28	3.2	2.8	.36	0	.29
22	.55	.36	2.8	62	20	60	27	2.7	2.3	.29	0	.29
23	.63	.39	2.6	43	22	138	31	2.4	1.9	.23	0	.21
24	.59	2.7	2.8	30	23	126	33	2.2	1.8	.20	0	.20
25	.51	1.7	2.2	25	17	102	39	2.6	1.9	.18	0	.21
26	.51	1.2	2.0	27	16	180	34	4.6	2.2	.16	0	.34
27	.45	1.2	2.1	32	15	88	29	2.8	1.9	.14	0	.39
28	.39	2.4	2.2	28	12	68	27	2.0	1.9	.11	0	.36
29	.39	1.8	2.2	27	------	71	23	1.8	1.8	.08	0	.42
30	.36	2.8	2.2	46	------	75	20	2.2	1.6	.04	0	.36
31	.42	------	2.2	87	------	51	------	3.0	------	.03	0	------
TOTAL	10.68	27.79	94.6	1,463.3	863	1,368.0	973	191.6	122.4	19.60	.40	3.71
MEAN	.34	.93	3.05	47.2	30.8	44.1	32.4	6.18	4.08	.63	.013	.12
MAX	.68	2.8	9.0	325	75	180	57	18	9.6	1.6	.11	.42
MIN	.12	.36	1.0	1.4	12	8.0	18	1.8	1.6	.03	0	0
AC-FT	21	55	188	2,900	1,710	2,710	1,930	380	243	39	.8	7.4

CAL YR 1970 TOTAL 5,178.90 MEAN 14.2 MAX 345 MIN 0 AC-FT 10,270
WTR YR 1971 TOTAL 5,138.08 MEAN 14.1 MAX 325 MIN 0 AC-FT 10,190

PEAK DISCHARGE (BASE, 80 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-19	1030	5.15	481	3-12	0030	3.49	81
1-31	1830	3.71	118	3-26	0330	4.27	242

14044000 Middle Fork John Day River at Ritter, Oreg.

LOCATION.--Lat 44°53'20", long 119°08'25", in SW¼NW¼ sec.8, T.8 S., R.30 E., Grant County, on left bank 0.2 mile south of Ritter, 0.8 mile downstream from Twelvemile Creek, and at mile 14.9.

DRAINAGE AREA.--515 sq mi.

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,544.56 ft above mean sea level.

AVERAGE DISCHARGE.--42 years, 238 cfs (172,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,620 cfs Jan. 18 (gage height, 6.54 ft, from floodmark in well); minimum, 14 cfs Aug. 21. Period of record: Maximum discharge, 4,730 cfs Jan. 30, 1965 (gage height, 8.39 ft), from rating curve extended above 2,200 cfs; maximum gage height, 9.13 ft Feb. 1, 1963 (ice jam); minimum discharge, 0.90 cfs Aug. 19, 20, 1966.

REMARKS.--Records excellent. No regulation. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 739: 1931. WSP 1218: 1950. WSP 1448: 1930-32, 1937, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	60	170	73	764	238	683	875	633	148	33	30
2	37	59	172	41	702	216	671	1,040	596	134	36	34
3	37	57	137	37	584	246	695	1,280	513	126	34	51
4	35	55	141	41	522	249	726	1,400	488	116	30	47
5	34	57	129	50	462	220	819	1,370	458	112	30	41
6	35	76	165	80	343	186	997	1,280	445	108	26	37
7	41	78	198	90	336	216	1,370	1,180	449	103	25	35
8	41	78	260	185	336	203	1,270	1,240	445	99	30	36
9	43	94	240	583	322	199	1,170	1,250	437	99	29	34
10	70	91	172	578	364	197	1,230	1,160	441	127	25	33
11	60	93	191	400	505	212	1,080	1,120	479	117	23	31
12	50	191	131	285	513	238	924	1,170	424	101	23	30
13	46	146	110	219	560	231	826	1,250	415	90	22	29
14	44	105	131	200	560	214	807	1,120	386	84	22	24
15	43	95	134	211	590	224	908	1,000	353	80	21	22
16	42	87	141	361	548	184	888	1,070	325	76	21	26
17	41	82	113	1,240	509	186	881	893	297	63	18	28
18	45	82	79	2,240	475	169	801	776	290	61	18	28
19	72	89	69	1,910	454	184	714	716	301	62	16	29
20	66	92	70	1,850	407	195	726	656	274	64	16	29
21	72	89	80	1,090	[illegible]	210	795	578	263	61	16	32
22	76	58	100	819	386	252	745	530	257	55	20	32
23	82	66	94	677	346	509	832	536	243	52	25	32
24	110	265	90	554	332	844	801	560	227	50	30	30
25	84	438	80	488	329	770	733	650	224	48	27	30
26	75	274	82	526	287	1,180	720	746	238	46	26	36
27	65	220	83	500	294	1,060	733	804	212	42	25	42
28	59	232	97	462	265	850	745	888	199	40	23	44
29	59	202	103	420	------	795	776	932	184	38	22	57
30	58	208	101	483	------	857	807	795	165	37	21	62
31	59	------	104	751	------	776	------	695	------	35	26	------
TOTAL	1,720	3,819	3,967	17,444	12,452	12,310	25,873	29,560	10,661	2,474	759	1,051
MEAN	55.5	127	128	563	445	397	862	954	355	79.8	24.5	35.0
MAX	110	438	260	2,240	764	1,180	1,370	1,400	633	148	36	62
MIN	34	55	69	37	265	169	671	530	165	35	16	22
AC-FT	3,410	7,570	7,870	34,600	24,700	24,420	51,320	58,630	21,150	4,910	1,510	2,080

CAL YR 1970 TOTAL 102,815 MEAN 282 MAX 2,270 MIN 11 AC-FT 203,900
WTR YR 1971 TOTAL 122,090 MEAN 334 MAX 2,240 MIN 16 AC-FT 242,200

PEAK DISCHARGE (BASE, 760 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 9	0200	6.21	2,260	4- 7	1200	5.36	1,460
1-18	0100	6.54	2,620	5- 4	0600	5.33	1,430
2- 1	0200	4.54	794				

14046000 North Fork John Day River at Monument, Oreg.

LOCATION.--Lat 44°48'50", long 119°25'50", in SE¼ sec.2, T.9 S., R.27 E., Grant County, on right bank just downstream from entrance to canyon, 0.7 mile downstream from Cottonwood Creek, 0.8 mile west of Monument, and at mile 15.3.

DRAINAGE AREA.--2,520 sq mi, approximately.

PERIOD OF RECORD.--March 1925 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,959.64 ft above mean sea level. Prior to Nov. 24, 1925, nonrecording gage and Nov. 24, 1925, to Oct. 16, 1928, water-stage recorder at datum 1.10 ft higher. Oct. 17, 1928, to Sept. 30, 1930, water-stage recorder at datum 1.00 ft higher.

AVERAGE DISCHARGE.--46 years, 1,203 cfs (871,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,600 cfs Jan. 18 (gage height, 11.18 ft); minimum, 94 cfs Aug. 20-22, 30, 31, Sept. 16.
Period of record: Maximum discharge, 33,400 cfs Jan. 30, 1965 (gage height, 18.45 ft), from rating extended above 17,000 cfs; minimum, 6 cfs sometime during period Nov. 2-13, 1936 (result of freezeup); minimum daily, 17 cfs Dec. 12, 1932.

REMARKS.--Records excellent. Very slight regulation by small reservoirs upstream. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 754: 1932(M). WSP 1448: 1927, 1931(M), 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	276	960	470	3,300	1,060	3,180	3,720	3,180	853	169	107
2	138	268	848	350	3,110	1,020	2,790	4,010	3,070	802	172	127
3	135	257	799	230	2,540	1,060	2,720	4,700	2,710	759	186	150
4	132	246	757	250	2,340	1,100	2,710	5,890	2,690	702	176	186
5	128	254	694	290	2,040	976	2,850	7,130	2,500	661	159	172
6	125	279	975	280	1,620	876	3,240	6,980	2,410	629	153	144
7	133	367	1,720	400	1,360	897	3,990	6,290	2,390	591	144	132
8	150	369	1,710	500	1,440	918	5,360	5,870	2,480	547	144	125
9	163	383	1,420	1,500	1,420	904	4,910	6,220	2,410	534	150	125
10	191	412	1,130	2,250	1,550	890	4,720	6,530	2,310	617	135	119
11	365	430	1,020	1,760	2,060	984	5,080	6,000	2,600	674	127	112
12	274	584	883	1,320	2,090	1,260	4,520	5,660	2,330	560	119	109
13	224	665	740	1,050	2,740	1,380	3,950	6,060	2,350	496	114	105
14	201	524	660	960	2,340	1,190	3,560	6,490	2,240	463	109	102
15	187	442	760	1,060	2,610	1,170	3,470	5,440	2,040	431	107	98
16	179	439	860	2,320	2,490	1,130	3,830	5,140	1,670	410	105	96
17	171	414	800	7,520	2,290	939	3,780	5,160	1,720	383	105	98
18	176	404	560	11,600	2,090	932	3,740	4,220	1,640	346	100	100
19	213	396	360	9,750	1,950	869	3,490	3,590	1,780	335	100	100
20	329	387	350	9,820	1,820	925	3,130	3,350	1,610	335	98	102
21	304	386	450	5,360	1,590	1,030	3,060	2,970	1,540	321	94	105
22	333	315	600	3,990	1,640	1,170	3,300	2,610	1,560	299	98	112
23	344	219	660	3,320	1,580	1,850	3,380	2,530	1,510	272	105	114
24	380	573	600	2,820	1,490	3,720	3,440	2,610	1,380	254	112	109
25	415	1,620	560	2,430	1,520	3,860	3,890	3,060	1,310	240	119	107
26	359	1,320	500	2,280	1,250	3,960	3,550	3,710	1,450	228	109	114
27	322	1,060	460	2,330	1,250	5,410	3,440	3,920	1,240	216	105	132
28	251	1,040	520	2,130	1,180	4,170	3,400	4,220	1,130	204	105	156
29	234	1,010	560	1,940	------	3,480	3,440	4,430	1,030	193	102	183
30	259	1,040	560	1,990	------	3,380	3,550	3,890	939	186	98	193
31	254	------	580	3,110	------	3,680	------	3,320	------	172	96	------
TOTAL	7,212	16,379	24,057	85,380	54,200	56,190	109,470	145,720	59,419	13,713	3,815	3,734
MEAN	233	546	776	2,754	1,936	1,813	3,649	4,701	1,981	442	123	124
MAX	415	1,620	1,720	11,600	3,300	5,410	5,360	7,130	3,180	853	186	193
MIN	125	219	350	230	1,180	869	2,710	2,530	939	172	94	96
AC-FT	14,310	32,490	47,720	169,400	107,500	111,500	217,100	289,000	117,900	27,200	7,570	7,410

CAL YR 1970 TOTAL 526,506 MEAN 1,442 MAX 16,100 MIN 64 AC-FT 1,044,000
WTR YR 1971 TOTAL 579,289 MEAN 1,587 MAX 11,600 MIN 94 AC-FT 1,149,000

PEAK DISCHARGE (BASE, 5,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	0400	11.18	13,600	4- 8	1100	7.85	5,710
3-27	0330	7.90	5,800	5- 5	1330	8.77	7,610

14046500 John Day River at Service Creek, Oreg.

LOCATION.--Lat 44°47'38", long 120°00'20", in NW¼NE¼ sec.18, T.9 S., R.23 E., Wheeler County, on left bank 0.2 mile downstream from bridge on State Highway 207, 0.8 mile downstream from Service Creek, 0.5 mile southwest of town of Service Creek, and at mile 156.7.

DRAINAGE AREA.--5,090 sq mi, approximately.

PERIOD OF RECORD.--March 1925 to September 1926, October 1929 to current year. Monthly discharge only March 1925 to September 1926, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,632.42 ft above mean sea level. See WSP 1738 for history of changes prior to Feb. 24, 1957.

AVERAGE DISCHARGE.--43 years, 1,800 cfs (1,304,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,000 cfs Jan. 18 (gage height, 12.85 ft); minimum, 75 cfs Aug. 22.

Period of record: Maximum discharge, 40,200 cfs Dec. 23, 1964 (gage height, 17.85 ft), from rating curve extended above 14,000 cfs on basis of slope-area measurement of peak flow; minimum, 20 cfs Sept. 6, 1931.

REMARKS.--Records excellent. Very slight regulation by several small reservoirs above station. Many small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	498	1,590	846	4,810	1,900	4,810	5,610	4,840	1,360	184	90
2	270	510	1,330	620	4,710	1,740	4,500	6,400	4,590	1,200	175	96
3	265	499	1,290	436	4,230	1,730	4,400	8,000	4,210	1,110	235	120
4	265	496	1,140	344	3,770	2,000	4,470	9,580	3,920	1,030	222	135
5	270	491	1,090	380	3,510	1,810	4,760	9,890	3,700	942	202	169
6	261	506	1,060	415	3,040	1,640	5,510	9,140	3,460	878	178	175
7	257	547	1,980	602	2,400	1,530	7,050	8,290	3,350	825	175	157
8	270	607	2,560	731	2,460	1,640	7,700	8,240	3,380	783	169	140
9	306	609	2,300	2,510	2,480	1,580	6,990	8,960	3,370	752	163	130
10	315	656	1,950	3,890	2,500	1,580	7,330	8,470	3,270	804	163	127
11	360	700	1,570	3,240	3,010	1,660	6,990	7,840	3,540	920	149	122
12	483	768	1,530	2,380	3,270	2,050	6,140	7,760	3,430	867	125	113
13	408	1,040	1,040	1,810	3,380	2,400	5,530	8,450	3,270	752	113	110
14	384	951	966	1,550	3,660	2,130	5,250	8,350	3,300	680	106	108
15	366	795	1,180	1,600	3,800	2,000	5,470	7,230	3,010	611	102	106
16	345	724	1,240	2,630	4,040	2,000	5,680	7,130	2,720	566	100	100
17	340	707	1,130	9,850	3,660	1,700	5,650	6,740	2,500	530	96	96
18	345	691	825	19,300	3,450	1,660	5,460	5,740	2,370	506	90	96
19	366	685	539	16,400	3,270	1,540	4,980	5,050	2,480	466	86	102
20	414	684	514	17,700	3,040	1,630	4,720	4,710	2,460	458	86	104
21	525	668	611	10,400	2,830	1,780	5,050	4,230	2,260	458	82	110
22	522	655	930	7,150	2,590	2,090	5,170	3,820	2,190	415	77	110
23	546	575	978	5,830	2,710	3,610	5,130	3,610	2,190	350	78	140
24	581	593	899	5,060	2,540	5,880	5,700	3,590	2,090	320	85	166
25	644	2,310	857	4,380	2,580	5,610	5,300	3,780	1,950	307	85	178
26	642	2,410	762	3,970	2,300	7,130	5,100	4,550	2,080	307	100	172
27	595	1,800	670	3,990	2,140	7,510	5,010	5,060	2,010	289	102	184
28	553	1,600	741	3,720	2,110	5,900	5,030	5,440	1,840	253	96	210
29	498	1,630	815	3,460	------	5,300	5,120	5,720	1,700	226	94	280
30	489	1,500	825	3,290	------	5,490	5,300	5,750	1,530	206	90	356
31	502	------	846	4,070	------	5,490	------	5,050	------	194	88	------
TOTAL	12,661	26,905	35,758	142,554	88,290	91,710	165,300	202,180	87,010	19,365	3,896	4,302
MEAN	408	897	1,153	4,599	3,153	2,958	5,510	6,522	2,900	625	126	143
MAX	644	2,410	2,560	19,300	4,810	7,510	7,700	9,890	4,840	1,360	235	356
MIN	257	491	514	344	2,110	1,530	4,400	3,590	1,530	194	77	90
AC-FT	25,110	53,370	70,930	282,800	175,100	181,900	327,900	401,000	172,600	38,410	7,730	8,530

CAL YR 1970 TOTAL 821,360 MEAN 2,250 MAX 24,200 MIN 58 AC-FT 1,629,000
WTR YR 1971 TOTAL 879,931 MEAN 2,411 MAX 19,300 MIN 77 AC-FT 1,745,000

PEAK DISCHARGE (BASE, 7,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-18	1230	12.85	21,000	4- 7	2130	8.43	8,260
3-26	1830	8.61	8,620	5- 4	1630	9.29	10,200

14048000 John Day River at McDonald Ferry, Oreg.

LOCATION.--Lat 45°35'16", long 120°24'30", in NE¼NW¼ sec.11, T.1 N., R.19 E., Sherman County, on left bank at McDonald Ferry, 0.8 mile downstream from Rock Creek, 10 miles east of Klondike, and at mile 20.9.

DRAINAGE AREA.--7,580 sq mi, approximately.

PERIOD OF RECORD.--December 1904 to current year. Prior to Oct. 1, 1930, published as "at McDonald."

GAGE.--Water-stage recorder. Datum of gage is 392.27 ft above mean sea level. Prior to Aug. 30, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--66 years (1905-71), 1,995 cfs (1,445,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22,000 cfs Jan. 19 (gage height, 9.96 ft); minimum, 38 cfs Aug. 29, 30.

Period of record: Maximum discharge, 42,800 cfs Dec. 24, 1964 (gage height, 13.59 ft, from floodmark), from rating curve extended above 11,000 cfs on basis of slope-area measurement of peak flow; no flow for part of Sept. 2, 1966.

Flood of 1894 reached a stage of 12.8 ft, from floodmarks (discharge 39,100 cfs, from rating curve extended above 22,000 cfs).

REMARKS.--Records excellent. No regulation. Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1094: 1894(M), 1932(M). WSP 1448: 1908-9, 1912, 1916, 1920(M), 1922, 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	520	1,720	974	3,970	2,090	5,440	5,130	5,100	1,570	215	78
2	291	538	1,700	995	4,710	1,970	4,860	5,470	4,820	1,420	190	96
3	280	534	1,640	964	4,630	1,800	4,450	6,350	4,550	1,270	195	96
4	274	547	1,430	798	4,260	1,680	4,330	8,160	4,230	1,160	181	95
5	274	560	1,390	581	3,770	1,830	4,310	9,750	3,890	1,070	166	93
6	258	543	1,280	632	3,560	1,850	4,490	9,900	3,700	1,000	182	102
7	268	542	1,230	529	3,160	1,680	5,090	9,180	3,460	909	196	92
8	276	536	1,480	633	2,610	1,530	6,630	8,350	3,320	847	183	105
9	270	573	2,500	811	2,500	1,570	7,610	8,440	3,300	808	170	145
10	265	652	2,450	1,240	2,550	1,570	6,820	9,080	3,340	789	167	142
11	280	695	2,150	3,690	2,500	1,550	7,010	8,510	3,240	780	166	122
12	303	749	1,830	3,360	2,800	1,550	6,970	7,930	3,370	792	139	115
13	316	778	1,680	2,600	3,180	1,730	6,120	7,930	3,450	906	123	106
14	421	860	1,500	2,080	3,220	2,150	5,530	8,670	3,190	818	124	101
15	450	1,140	1,170	1,760	3,470	2,070	5,140	8,320	3,230	726	122	96
16	406	1,010	1,230	1,980	3,590	1,900	5,340	7,220	3,020	661	106	89
17	392	862	1,340	3,420	3,880	1,910	5,610	7,190	2,750	603	83	79
18	374	798	1,370	12,800	3,550	1,760	5,560	6,640	2,560	551	79	77
19	365	776	1,200	20,300	3,380	1,580	5,360	5,660	2,390	518	72	75
20	372	756	930	18,100	3,180	1,570	4,900	4,960	2,320	490	66	74
21	388	738	730	17,500	2,990	1,500	4,670	4,630	2,490	439	58	74
22	406	723	701	10,400	2,820	1,600	4,940	4,210	2,250	404	54	74
23	529	744	792	7,550	2,570	1,800	5,080	3,820	2,110	402	52	73
24	543	766	1,130	6,060	2,670	2,970	5,070	3,570	2,100	392	46	76
25	590	685	1,070	5,240	2,520	5,720	5,630	3,530	2,050	350	50	69
26	629	1,200	973	4,590	2,440	5,730	5,250	3,720	1,930	306	50	71
27	707	2,720	961	4,150	2,370	7,220	5,010	4,350	1,880	286	50	80
28	718	2,110	914	4,100	2,120	7,710	4,900	4,850	2,040	273	47	126
29	662	1,800	879	3,870	------	6,110	4,910	5,230	1,860	265	40	143
30	618	1,770	918	3,610	------	5,310	4,960	5,510	1,720	251	40	139
31	561	------	985	3,420	------	5,260	------	5,650	------	228	44	------
TOTAL	12,795	27,225	41,273	148,737	88,970	86,270	161,990	201,910	89,660	21,284	3,456	2,903
MEAN	413	908	1,331	4,798	3,178	2,783	5,400	6,513	2,989	687	111	96.8
MAX	718	2,720	2,500	20,300	4,710	7,710	7,610	9,900	5,100	1,570	215	145
MIN	258	520	701	529	2,120	1,500	4,310	3,530	1,720	228	40	69
AC-FT	25,380	54,000	81,870	295,000	176,500	171,100	321,300	400,500	177,800	42,220	6,850	5,760

CAL YR 1970 TOTAL 890,900 MEAN 2,441 MAX 27,000 MIN 48 AC-FT 1,767,000
WTR YR 1971 TOTAL 886,473 MEAN 2,429 MAX 20,300 MIN 40 AC-FT 1,758,000

PEAK DISCHARGE (BASE, 6,900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-19	0700	9.96	22,000	4- 8	2230	6.32	7,960
3-27	1800	6.54	8,620	5- 5	1530	7.05	10,200

14050000 Deschutes River below Snow Creek, near La Pine, Oreg.

LOCATION.--Lat 43°48'51", long 121°46'33", in NW¼ sec.28, T.20 S., R.8 E., Deschutes County, Deschutes National Forest, on left bank at flow line of Crane Prairie Reservoir, 20 ft downstream from Snow Creek, 300 ft upstream from highway bridge, and 17 miles northwest of La Pine.

DRAINAGE AREA.--132 sq mi including Sparks, Elk, and Mud Lake basins, which have no surface outflow to Deschutes River; hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only October 1937, published in WSP 1318. Published as "near Lapine" 1937-64.

GAGE.--Water-stage recorder. Altitude of gage is 4,445 ft (from elevation of Crane Prairie Reservoir when slack water extended to gage). Prior to Sept. 10, 1938, nonrecording gage at site 450 ft downstream at different datum.

AVERAGE DISCHARGE.--34 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 400 cfs Aug. 30 (gage height, 2.65 ft); minimum 89 cfs Jan. 2.
Period of record: Maximum discharge, 444 cfs July 13, 1956 (gage height, 3.13 ft); maximum gage height, 4.12 ft Jan. 21, 1943 (ice jam); minimum discharge, 40 cfs sometime during period Dec. 22, 1959, to Mar. 2, 1960, result of freezeup; minimum daily, 55 cfs for many days April to June 1941.

REMARKS.--Records good. No regulation. Crater Creek Canal diverts water to Tumalo Creek basin from tributaries of Soda Creek. Stream is spring fed and peak discharge may occur several months after the precipitation which caused it.

REVISIONS (WATER YEARS).--WSP 1248: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	132	128	99	101	101	95	109	249	240	344	395
2	165	130	125	98	101	99	95	113	249	240	348	397
3	162	130	125	98	101	99	95	117	249	240	353	392
4	162	132	121	98	103	101	97	121	249	240	356	390
5	162	135	121	98	101	99	97	123	246	240	360	389
6	159	130	119	100	99	99	97	125	246	240	364	388
7	156	128	119	100	99	97	97	130	246	240	366	383
8	153	130	117	100	99	97	97	145	243	240	371	382
9	153	128	115	100	97	95	99	145	243	243	372	378
10	153	125	115	100	101	97	99	150	246	246	376	377
11	150	130	113	102	99	97	97	156	246	246	378	376
12	150	130	111	102	99	99	97	168	246	246	382	372
13	148	125	111	102	99	97	97	174	246	249	384	370
14	145	123	111	102	99	99	97	180	246	252	386	368
15	145	123	111	105	101	97	99	189	243	255	388	365
16	145	123	113	106	99	97	99	195	243	258	388	362
17	142	121	109	108	99	95	99	192	246	261	389	358
18	142	123	107	110	101	95	97	192	249	264	390	354
19	140	121	107	110	101	95	99	195	249	267	392	353
20	142	119	107	112	99	93	99	195	246	272	392	348
21	145	117	107	114	99	93	99	198	240	270	394	344
22	145	117	105	115	99	97	97	201	237	270	396	342
23	156	125	103	115	99	97	97	207	237	276	395	338
24	150	142	101	113	101	97	97	213	237	282	395	336
25	148	132	101	113	103	97	101	224	249	294	395	336
26	142	130	101	111	101	99	101	234	243	300	395	336
27	140	132	99	109	101	97	103	231	240	308	396	332
28	138	128	101	107	103	97	105	234	240	318	395	334
29	138	125	103	105	------	97	107	240	240	326	394	336
30	135	128	101	105	------	97	107	243	240	334	395	332
31	135	------	101	103	------	95	------	246	------	340	396	------
TOTAL	4,611	3,814	3,428	3,260	2,804	3,011	2,962	5,585	7,329	8,297	11,825	10,863
MEAN	149	127	111	105	100	97.1	98.7	180	244	268	381	362
MAX	165	142	128	115	103	101	107	246	249	340	396	397
MIN	135	117	99	98	97	93	95	109	237	240	344	332
AC-FT	9,150	7,570	6,800	6,470	5,560	5,970	5,880	11,080	14,540	16,460	23,450	21,550

CAL YR 1970 TOTAL 45,193 MEAN 124 MAX 190 MIN 88 AC-FT 89,640
WTR YR 1971 TOTAL 67,789 MEAN 186 MAX 397 MIN 93 AC-FT 134,500

14050500 Cultus River above Cultus Creek, near La Pine, Oreg.

LOCATION.--Lat 43°49'06", long 121°47'40", near line between secs.20 and 29, T.20 S., R.8 E., Deschutes County, Deschutes National Forest, on left bank at highway culvert, 2 miles upstream from Cultus Creek, and 18 miles northwest of La Pine.

DRAINAGE AREA.--16.5 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--October 1922 to September 1925, October 1937 to current year. Monthly discharge only October 1937, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder and cement bag control. Altitude of gage is 4,450 ft (by barometer). Oct. 1, 1922, to Sept. 30, 1925, nonrecording gage at site 0.5 mile upstream at different datum.

AVERAGE DISCHARGE.--37 years, 62.8 cfs (45,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 115 cfs May 28, 29 (gage height, 1.03 ft); minimum 40 cfs sometime during period Jan. 10-22.

Period of record: Maximum discharge, 178 cfs May 31, 1956 (gage height, 1.04 ft); maximum gage height, 1.28 ft May 5, 6, 1965 (backwater from Crane Prairie Reservoir); minimum discharge, 26 cfs May 26-31, Nov. 23 to Dec. 4, 1959.

REMARKS.--Records good. No regulation or diversion above station.

REVISION (WATER YEARS).--WSP 1448: 1923-25, 1947.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	52	50	44	46	46	44	54	101	88	90	88
2	54	52	50	44	46	44	44	56	98	88	90	88
3	54	52	48	44	46	44	44	58	96	88	90	88
4	54	52	48	44	46	44	46	58	96	88	90	88
5	54	52	46	42	46	44	46	60	96	88	90	88
6	54	54	48	42	46	44	46	63	96	90	90	86
7	54	54	48	42	46	44	46	65	96	90	90	86
8	54	54	48	42	44	44	46	67	96	90	90	86
9	54	54	48	42	44	44	46	67	96	90	90	86
10	54	54	46	42	44	44	46	70	96	90	90	86
11	54	54	46	42	44	44	46	72	96	90	90	86
12	52	52	46	43	44	44	46	86	93	90	90	86
13	52	52	46	43	44	44	46	93	93	90	90	86
14	52	52	46	43	44	46	46	96	93	90	90	83
15	52	52	46	44	44	46	48	93	93	90	90	83
16	52	50	46	44	44	48	48	90	93	90	90	83
17	52	50	44	44	44	46	48	88	93	90	90	83
18	52	48	44	45	44	46	48	90	93	90	90	83
19	50	48	44	45	44	46	48	93	93	90	90	83
20	50	48	44	45	44	46	48	90	93	90	90	83
21	50	48	44	46	44	46	50	90	90	90	88	83
22	50	50	44	46	44	46	50	93	90	90	88	83
23	52	50	44	46	44	46	50	98	90	90	88	83
24	52	50	44	46	46	46	52	98	90	90	88	83
25	52	50	44	46	46	46	52	101	90	90	88	83
26	52	50	44	46	46	46	52	107	90	90	88	83
27	52	50	44	46	46	46	54	109	90	90	88	83
28	52	50	44	46	46	46	54	112	90	90	88	83
29	52	50	44	46	------	46	54	112	88	90	88	83
30	52	50	44	46	------	44	54	109	88	90	88	83
31	52	------	44	46	------	44	------	104	------	93	88	------
TOTAL	1,626	1,534	1,418	1,372	1,256	1,400	1,448	2,642	2,796	2,783	2,768	2,539
MEAN	52.5	51.1	45.7	44.3	44.9	45.2	48.3	85.2	93.2	89.8	89.3	84.6
MAX	54	54	50	46	46	48	54	112	101	93	90	88
MIN	50	48	44	42	44	44	44	54	88	88	88	83
AC-FT	3,230	3,040	2,810	2,720	2,490	2,780	2,870	5,240	5,550	5,520	5,490	5,040

CAL YR 1970 TOTAL 19,324 MEAN 52.9 MAX 70 MIN 40 AC-FT 38,330
WTR YR 1971 TOTAL 23,582 MEAN 64.6 MAX 112 MIN 42 AC-FT 46,770

14051000 Cultus Creek above Crane Prairie Reservoir, near La Pine, Oreg.

LOCATION.--Lat 43°49'17", long 121°49'22", in SW¼ sec.19, T.20 S., R.8 E., Deschutes County, on left bank 1,000 ft upstream from highway bridge, 1.0 mile downstream from Cultus Lake, and 19 miles northwest of La Pine.

DRAINAGE AREA.--33.2 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--March to September 1924 (published as "above Crane Prairie, near Lapine"), October 1937 to current year. Monthly discharge only October 1937 to September 1949, published in WSP 1318. Records for October 1923 to February 1924, published in WSP 594, have been found to be unreliable and should not be used. Published as "near Lapine" 1937-64.

GAGE.--Water-stage recorder. Altitude of gage is 4,545 ft (by barometer). Mar. 1 to Sept. 30, 1924, nonrecording gage at site 100 ft upstream at different datum.

AVERAGE DISCHARGE.--34 years (1937-71), 22.7 cfs (16,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 166 cfs May 30 (gage height, 3.07 ft); minimum, 0.10 cfs Oct. 3-5.
Period of record: Maximum discharge, 336 cfs Dec. 25, 1964 (gage height, 4.15 ft, from floodmark), from rating curve extended above 90 cfs; no flow at times.

REMARKS.--Records good. Some regulation by fish screens at Cultus Lake since 1962. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1568: 1957. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.20	30	25	60	23	24	18	156	112	29	4.9
2	.20	.20	31	24	55	22	23	19	149	105	27	5.2
3	.10	.20	34	22	52	22	21	21	139	99	26	5.6
4	.10	.20	34	21	51	22	21	23	132	94	25	5.6
5	.10	.30	32	20	48	23	20	27	125	88	23	5.6
6	.20	.30	30	20	44	23	20	29	121	83	22	5.6
7	.20	.20	29	21	41	24	19	32	119	79	20	5.2
8	.20	.40	29	24	38	25	18	38	119	76	19	4.9
9	.20	.50	28	28	36	26	19	44	122	73	18	4.6
10	.20	.50	27	34	37	28	20	52	125	70	17	4.2
11	.20	.90	26	35	36	29	20	57	123	67	16	4.2
12	.20	1.4	25	35	34	30	20	65	121	64	16	3.5
13	.20	1.4	24	35	34	31	19	73	121	63	14	3.3
14	.20	1.3	24	38	33	30	18	79	121	60	14	3.1
15	.20	1.3	24	45	34	29	18	85	121	59	13	2.9
16	.20	1.4	25	60	34	28	19	93	119	58	12	2.7
17	.20	1.5	25	80	33	27	19	94	118	55	11	2.3
18	.20	1.7	24	100	33	26	20	93	118	53	11	1.9
19	.20	1.7	22	110	34	24	19	93	118	52	10	1.9
20	.20	1.7	21	110	32	23	19	92	121	52	9.0	1.5
21	.20	1.7	20	112	30	21	19	90	122	50	8.6	1.4
22	.20	1.5	19	114	30	22	18	89	125	48	7.8	1.3
23	.40	2.3	18	113	28	23	18	88	126	44	7.0	1.3
24	.30	8.6	17	109	27	23	18	90	125	42	6.6	1.3
25	.20	18	16	104	26	24	18	96	133	39	6.3	1.1
26	.20	24	15	95	25	26	17	109	143	37	6.0	1.3
27	.20	30	15	88	24	27	17	121	142	36	5.6	1.1
28	.20	31	17	82	24	26	17	135	136	34	4.9	1.3
29	.20	30	20	75	------	25	17	152	128	32	4.9	1.5
30	.20	30	22	69	------	25	17	165	121	31	4.9	1.9
31	.20	------	25	64	------	25	------	159	------	30	4.9	------
TOTAL	6.20	194.40	748	1,912	1,013	782	572	2,421	3,809	1,885	419.5	92.2
MEAN	.20	6.48	24.1	61.7	36.2	25.2	19.1	78.1	127	60.8	13.5	3.07
MAX	.40	31	34	114	60	31	24	165	156	112	29	5.6
MIN	.10	.20	15	20	24	21	17	18	118	30	4.9	1.1
AC-FT	12	386	1,480	3,790	2,010	1,550	1,130	4,800	7,560	3,740	832	183

CAL YR 1970 TOTAL 7,335.50 MEAN 20.1 MAX 83 MIN .10 AC-FT 14,550
WTR YR 1971 TOTAL 13,854.30 MEAN 38.0 MAX 165 MIN .10 AC-FT 27,480

NOTE.--No gage-height record Dec. 10 to Jan. 21.

14052000 Deer Creek above Crane Prairie Reservoir, near La Pine, Oreg.

LOCATION (revised).--Lat 43°48'18", long 121°50'18", in SE¼SW¼ sec.25, T.20 S., R.7 E., Deschutes County, on right bank 150 ft downstream from highway bridge, 1.2 miles downstream from Little Cultus Lake, and 19 miles northwest of La Pine.

DRAINAGE AREA.--21.5 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--February to September 1924 (published as "above Crane Prairie, near Lapine"), October 1937 to current year. Monthly discharge only October 1937 to September 1949, published in WSP 1318. Records for October 1923 to January 1924, published in WSP 594, have been found to be unreliable and should not be used. Published as "near Lapine" 1937-64.

GAGE.--Water-stage recorder and wooden weir control. Altitude of gage is 4,520 ft (by barometer). Feb. 1 to Sept. 30, 1924, nonrecording gage at site 75 ft upstream at various datums. Oct. 1, 1937, to Sept. 30, 1938, water-stage recorder at bridge 150 ft upstream at different datum. Oct. 1, 1938, to Aug. 13, 1968, water-stage recorder and wooden weir control at present site and datum 0.60 ft higher.

AVERAGE DISCHARGE.--34 years (1937-71), 7.51 cfs (5,440 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 79 cfs May 29 (gage height, 2.65 ft); no flow at times.
Period of record: Maximum discharge, 200 cfs (estimated) Dec. 25, 1964; no flow at times.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS.--See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.10	9.8	3.0	15	7.0	8.2	16	57	15	1.4	.10
2	0	.10	9.8	2.8	14	6.8	7.8	18	49	13	1.2	.30
3	0	.10	9.0	2.5	12	6.8	7.3	21	44	11	1.1	.10
4	0	.20	8.5	2.4	12	7.0	7.3	25	40	10	.90	0
5	0	.30	8.0	2.0	13	7.0	7.3	27	38	9.2	.90	0
6	0	.20	6.9	2.0	12	7.5	8.0	29	38	8.5	.80	0
7	0	.20	7.1	2.1	11	8.2	8.5	31	39	7.3	.60	0
8	0	.40	6.9	2.3	10	9.2	9.0	39	41	6.7	.50	0
9	0	.30	6.3	4.4	9.5	9.8	10	43	42	6.3	.40	0
10	0	.20	5.7	5.7	12	9.5	11	47	43	6.5	.40	0
11	.10	.60	5.7	6.5	12	9.0	11	50	41	5.9	.30	0
12	.10	.60	5.6	7.1	12	9.0	10	53	39	5.4	.30	0
13	.10	.50	5.5	6.7	12	8.8	10	56	39	5.0	.30	0
14	.10	.40	5.5	7.0	12	8.5	10	56	39	4.8	.20	0
15	.10	.50	5.9	8.0	13	8.0	11	55	38	4.4	.10	0
16	.10	.80	5.9	10	13	7.5	11	55	36	4.2	.10	0
17	.10	.80	5.5	15	12	6.9	11	51	34	3.7	0	0
18	.20	1.0	5.2	30	12	6.4	11	46	33	3.2	0	0
19	.20	1.1	5.0	38	12	5.5	11	44	32	3.7	0	0
20	.20	1.2	4.5	56	12	5.2	11	40	31	4.0	0	0
21	.20	1.1	4.0	61	11	4.9	11	38	30	3.4	0	0
22	.20	1.0	3.8	55	9.8	5.7	11	38	29	2.8	0	0
23	.60	5.0	3.5	51	9.0	7.8	11	40	27	2.4	0	0
24	.30	13	3.2	48	8.5	8.5	11	46	26	2.1	0	0
25	.20	15	3.0	39	8.0	9.0	11	51	29	1.9	0	0
26	.20	12	2.9	32	7.8	10	11	68	28	1.7	0	.10
27	.10	13	2.8	28	7.6	10	12	76	26	1.5	0	0
28	.10	11	2.5	24	7.2	9.5	13	78	22	1.4	0	.10
29	.10	9.5	2.6	20	------	8.8	13	78	19	1.3	0	.20
30	.10	9.8	2.8	18	------	8.2	15	72	17	1.3	0	.20
31	.10	------	3.0	16	------	8.8	------	65	------	1.4	.10	------
TOTAL	3.50	100.00	166.4	605.5	311.4	244.8	310.4	1,452	1,046	159.0	9.60	1.10
MEAN	.11	3.33	5.37	19.5	11.1	7.90	10.3	46.8	34.9	5.13	.31	.037
MAX	.60	15	9.8	61	15	10	15	78	57	15	1.4	.30
MIN	0	.10	2.5	2.0	7.2	4.9	7.3	16	17	1.3	0	0
AC-FT	6.9	198	330	1,200	618	486	616	2,880	2,070	315	19	2.2

CAL YR 1970 TOTAL 2,449.90 MEAN 6.71 MAX 37 MIN 0 AC-FT 4,860
WTR YR 1971 TOTAL 4,409.70 MEAN 12.1 MAX 78 MIN 0 AC-FT 8,750

14052500 Quinn River near La Pine, Oreg.

LOCATION.--Lat 43°47'03", long 121°50'06", in SW¼NW¼ sec.1, T.21 S., R.7 E., Deschutes County, Deschutes National Forest, on left bank at flow line of Crane Prairie Reservoir, 150 ft downstream from springs at head of river, and 18 miles northwest of La Pine.

PERIOD OF RECORD.--June 1922 to September 1925, October 1937 to current year. Published as "above Crane Prairie Reservoir near Lapine" 1922-25, and as "near Lapine" 1937-64. Monthly discharge only October 1937, published in WSP 1318.

GAGE.--Water-stage recorder and log control. Datum of gage is 4,442.1 ft above mean sea level, based on elevation of Crane Prairie Reservoir when slack water reached station. June 1, 1922, to Sept. 30, 1925, nonrecording gage at site 150 ft downstream at different datum.

AVERAGE DISCHARGE.--37 years, 23.9 cfs (17,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 46 cfs June 25 to July 9 (gage height, 1.94 ft); minimum, 16 cfs Nov. 13, 14, 16.
Period of record: Maximum discharge, 59 cfs July 4, 1949 (gage height, 1.97 ft); maximum gage height, 3.92 ft June 25, 1943 (backwater from Crane Prairie Reservoir); practically no flow Nov. 14, 1941.

REMARKS.--Records good. No regulation or diversion above station. Normal flow is entirely from springs 150 ft upstream.

REVISIONS (WATER YEARS).--WSP 1448: 1939, 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	17	17	20	20	22	26	29	39	46	43	39
2	21	17	17	20	20	24	26	29	39	46	43	39
3	21	17	17	20	20	24	26	29	39	46	43	39
4	20	17	17	20	20	24	26	30	39	46	43	39
5	20	17	17	20	20	24	26	30	40	46	43	39
6	19	17	17	20	20	25	26	30	40	46	43	38
7	19	17	17	20	20	25	26	30	40	46	43	38
8	19	17	18	20	20	25	26	30	42	46	43	38
9	19	17	18	20	20	25	26	30	42	46	42	38
10	19	17	18	20	20	25	26	32	42	44	42	38
11	18	17	18	20	20	25	26	33	42	44	42	38
12	18	17	18	20	21	25	26	33	42	44	42	38
13	18	16	18	20	21	25	26	34	43	44	42	38
14	18	16	18	20	21	25	26	35	43	44	42	38
15	18	17	19	20	21	25	26	35	43	44	42	38
16	18	16	19	20	22	25	26	35	43	44	42	38
17	17	17	19	20	22	25	27	35	43	44	42	38
18	17	17	19	20	22	25	27	35	44	44	42	38
19	17	17	19	20	22	25	27	35	44	44	42	38
20	17	17	19	20	22	25	27	35	44	44	42	38
21	17	17	19	20	22	25	27	35	44	44	42	38
22	17	17	19	20	22	25	27	36	44	43	40	38
23	17	17	19	20	22	25	27	36	44	43	40	38
24	17	17	19	20	22	25	27	36	44	43	40	38
25	17	17	19	20	22	25	27	36	46	43	40	38
26	17	17	19	20	24	25	27	36	46	43	40	36
27	17	17	19	20	24	25	27	38	46	43	40	36
28	17	17	19	20	24	25	28	38	46	43	40	35
29	17	17	19	20	------	26	28	38	46	43	39	35
30	17	17	19	20	------	26	28	39	46	43	39	34
31	17	------	19	20	------	26	------	39	------	43	39	------
TOTAL	561	507	568	620	596	771	797	1,051	1,285	1,372	1,287	1,131
MEAN	18.1	16.9	18.3	20.0	21.3	24.9	26.6	33.9	42.8	44.3	41.5	37.7
MAX	21	17	19	20	24	26	28	39	46	46	43	39
MIN	17	16	17	20	20	22	26	29	39	43	39	34
AC-FT	1,110	1,010	1,130	1,230	1,180	1,530	1,580	2,080	2,550	2,720	2,550	2,240

CAL YR 1970 TOTAL 7,918 MEAN 21.7 MAX 32 MIN 16 AC-FT 15,710
WTR YR 1971 TOTAL 10,546 MEAN 28.9 MAX 46 MIN 16 AC-FT 20,920

14053000 Charlton Creek above Crane Prairie Reservoir, near La Pine, Oreg.

LOCATION (revised).--Lat 43°46'51", long 121°50'06", in NE¼SW¼ sec.1, T.21 S., R.7 E., Deschutes County, Deschutes National Forest, on left bank 3 miles northwest of Crane Prairie Dam and 18 miles northwest of La Pine.

DRAINAGE AREA.--15.6 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--May and June 1923, October 1937 to September 1951, May to September 1952, May to September 1953, May 1954 to September 1955, May 1956 to October 1962, May 1963 to November 1964, April to December 1965, February to November 1966, March 1967 to December 1970, March to September 1971. Monthly discharge only prior to October 1949, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder. Datum of gage is 4,458.70 ft above mean sea level, May 1 to June 30, 1923, nonrecording gage at about same site at different datum.

AVERAGE DISCHARGE.--25 years (1937-51, 1954-55, 1956-62, 1963-64, 1967-70), 1.41 cfs (1,020 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28 cfs May 28 (gage height, 1.30 ft); no flow most of year.
Period of record: Maximum discharge, 54 cfs June 12, 1950 (gage height, 1.53 ft), from rating curve extended above 27 cfs; maximum gage height, 2.39 ft Mar. 9, 1957 (ice jam); no flow for many months each year.
Flood of December 1964 (discharge not determined) may have exceeded peak of record.

REMARKS.--Records good April to July. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	1.2	12	7.8		
2							0	1.5	11	7.2		
3							0	3.0	11	6.7		
4							0	3.6	12	5.6		
5							0	3.3	11	4.5		
6							0	3.9	12	4.2		
7							0	4.5	14	3.6		
8							0	7.8	14	3.3		
9							0	10	15	3.3		
10							0	12	14	3.9		
11							0	14	12	3.0		
12							0	14	13	2.4		
13							0	15	13	1.8		
14							0	15	15	1.5		
15							0	16	14	1.2		
16							0	14	13	1.1		
17							0	11	12	.80		
18							0	11	13	.50		
19							0	12	13	.60		
20							.10	11	14	1.0		
21							.10	10	14	.10		
22							.10	14	15	0		
23							.10	17	15	0		
24							.10	18	14	0		
25							.10	19	20	0		
26							.60	25	17	0		
27							.80	23	12	0		
28							1.0	23	11	0		
29					------		1.0	25	8.4	0		
30					------		1.1	20	7.8	0		
31		------			------		------	15	------	0		------
TOTAL	0	0	0			0	5.10	392.8	392.2	64.10	0	0
MEAN	0	0	0			0	.17	12.7	13.1	2.07	0	0
MAX	0	0	0			0	1.1	25	20	7.8	0	0
MIN	0	0	0			0	0	1.2	7.8	0	0	0
AC-FT	0	0	0			0	10	779	778	127	0	0

CAL YR 1970	TOTAL	300.30	MEAN	.82	MAX	11	MIN	0	AC-FT	395
WAT YR 1971	TOTAL	-	MEAN	-	MAX	25	MIN	0	AC-FT	-

NOTE.--No gage-height record Jan. 1 to Feb. 28, some flow did occur during this period but discharge was not determined.

14053500 Crane Prairie Reservoir near La Pine, Oreg.

LOCATION.--Lat 43°45'20", long 121°47'00", in SW¼NW¼ sec.16, T.21 S., R.8 E., Deschutes County, in Deschutes National Forest, on control structure at Crane Prairie Dam on Deschutes River, 15 miles northwest of La Pine, and at mile 238.3.

DRAINAGE AREA.--254 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--November 1922 to November 1935, April to December 1936, April 1937 to current year. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder. Datum of gage is 4,400.0 ft above mean sea level (levels by Bureau of Reclamation). Prior to July 13, 1940, nonrecording gage, at site 150 ft upstream at same datum. July 13, 1940, to Sept. 15, 1966, nonrecording gage, at present site and datum.

EXTREMES.--Current year. Maximum contents, 48,670 acre-ft June 1 (elevation, 4,443.62 ft); minimum contents, 17,890 acre-ft Oct. 16-20 (elevation, 4,436.12 ft).

Period of record: Maximum contents observed, 60,500 acre-ft June 5-7, 1943 (elevation, 4,446.0 ft); no usable contents at times.

REMARKS.--Reservoir originally formed by earth-filled dam completed in 1922, reconstructed as rock-faced, earth-fill dam in 1940. Capacity, 55,340 acre-ft between elevation 4,424.0 (lip of fish-screen structure) and 4,445.0 ft (crest of spillway). Some dead storage in isolated pools in reservoir at stages below 4,428 ft and natural flow passing through reservoir when outlet gates are open prevents withdrawal of remaining storage to elevation of sill of gates. Crater Creek Canal diverts water to Tumalo Creek basin from tributaries of Soda Creek above station. Released water diverted from Deschutes River near Bend for irrigation near Bend and Redmond.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1318: 1925, 1940-41, 1950. WSP 1448: 1925(M,m), 1940(m), 1950(m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,436.57	19,470	-
Oct. 31	4,437.15	21,560	+2,090
Nov. 30	4,439.84	32,000	+10,440
Dec. 31	4,441.23	37,860	+5,860
CAL YR 1970	-	-	+5,400
Jan. 31	4,442.81	44,900	+7,040
Feb. 28	-	45,500	+600
Mar. 31	4,443.07	46,100	+600
Apr. 30	4,443.15	46,470	+370
May 31	4,443.60	48,570	+2,100
June 30	4,442.83	45,000	-3,570
July 31	4,440.99	36,830	-8,170
Aug. 31	4,439.62	31,110	-5,720
Sept.30	4,436.64	19,720	-11,390
WTR YR 1971	-	-	+250

NOTE.--Contents interpolated for days on which elevation reading not shown.

14054000 Deschutes River below Crane Prairie Reservoir, near La Pine, Oreg.

LOCATION.--Lat 43°45'13", long 121°46'57", in SW¼NW¼ sec.16, T.21 S., R.8 E., Deschutes County, Deschutes National Forest, on left bank 0.1 mile downstream from Crane Prairie Dam, 15 miles northwest of La Pine, and at mile 238.2.

DRAINAGE AREA.--254 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--August 1907 to November 1908 and August 1912 to September 1913 (fragmentary), October 1913 to September 1917, February 1922 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1949, published as "at Crane Prairie, near Lapine." Published as "near Lapine" 1949-64.

GAGE.--Water-stage recorder. Datum of gage is 4,419.78 ft above mean sea level (Pacific Power & Light Co. bench mark). Aug. 15, 1907, to Sept. 30, 1917, and Feb. 23 to June 8, 1922, nonrecording gage at site 0.5 mile upstream at different datums. June 9, 1922, to May 9, 1932, nonrecording gage or water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--53 years, 211 cfs (152,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 766 cfs Sept. 16 (gage height, 2.71 ft); minimum, 52 cfs Oct. 23-31.
Period of record: Maximum discharge, 1,170 cfs July 28, 1947 (gage height, 3.34 ft); minimum, 1.0 cfs Oct. 10, Nov. 29, 1966.

REMARKS.--Records good. Flow regulated since 1922 by Crane Prairie Reservoir (see sta 14053500). No diversion above station.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1318: 1929(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	53	56	95	97	142	142	199	489	552	552	552
2	262	53	61	95	118	142	142	199	506	552	552	552
3	262	53	61	95	140	142	142	199	506	552	552	552
4	262	53	61	95	140	142	142	199	506	552	552	552
5	262	53	61	95	140	142	142	199	506	552	552	552
6	262	53	63	95	140	142	142	199	506	557	552	552
7	262	53	63	95	140	142	142	199	511	552	552	552
8	262	53	63	95	140	142	142	199	506	552	552	552
9	262	53	63	95	140	142	142	199	506	552	552	552
10	262	53	63	95	140	142	142	199	506	552	552	552
11	262	53	63	95	140	142	142	202	506	552	552	552
12	262	53	64	95	140	142	142	202	506	552	552	552
13	262	53	64	95	140	142	142	292	506	552	552	552
14	258	53	66	95	140	142	142	426	506	552	552	552
15	258	53	66	95	140	142	142	426	506	552	552	552
16	258	53	66	95	140	142	142	426	506	552	552	594
17	226	53	75	95	140	142	142	426	506	552	552	760
18	205	53	95	95	140	142	142	426	506	552	552	749
19	208	53	95	95	140	142	142	426	506	552	552	738
20	211	53	95	95	140	142	142	422	506	552	552	727
21	214	53	95	95	140	142	142	422	506	557	552	722
22	214	53	95	97	140	142	142	422	506	557	552	722
23	111	53	95	97	140	142	142	422	506	557	552	722
24	52	53	95	97	140	142	142	422	520	557	552	727
25	52	53	95	97	142	142	142	422	552	557	552	722
26	52	53	95	97	142	142	142	426	552	557	552	722
27	52	53	95	97	142	142	142	426	552	552	552	716
28	52	53	95	97	142	142	142	451	552	552	552	716
29	52	53	95	97	-------	142	168	467	552	552	552	716
30	52	53	95	97	-------	142	199	467	552	552	552	716
31	52	-------	95	97	-------	142	-------	467	-------	552	552	-------
TOTAL	5,985	1,590	2,409	2,965	3,863	4,402	4,343	10,478	15,458	17,147	17,112	19,049
MEAN	193	53.0	77.7	95.6	138	142	145	338	515	553	552	635
MAX	262	53	95	97	142	142	199	467	552	557	552	760
MIN	52	53	56	95	97	142	142	199	489	552	552	552
AC-FT	11,870	3,150	4,780	5,880	7,660	8,730	8,610	20,780	30,660	34,010	33,940	37,780

CAL YR 1970 TOTAL 15,407 MEAN 42.2 MAX 372 MIN 45 AC-FT 30,560
WTR YR 1971 TOTAL 104,801 MEAN 287 MAX 760 MIN 52 AC-FT 207,900

14054500 Brown Creek near La Pine, Oreg.

LOCATION.--Lat 43°42'57", long 121°48'10", in NE¼SW¼ sec.29, T.21 S., R.8 E., Deschutes County, Deschutes National Forest, on right bank at highway crossing and 15 miles northwest of La Pine. Prior to Aug. 26, 1971 at site 0.8 mile upstream.

DRAINAGE AREA.--21 sq mi, approximately, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--May 1922 to September 1925, July 1938 to current year. Monthly discharge only July 1938 to September 1949, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder. Altitude of gage is 4,370 ft (from topographic map). May 24, 1922, to Sept. 30, 1925, nonrecording gage, and July 1, 1938, to Nov. 1, 1945, water-stage recorder, at site 0.4 mile downstream at different datums. Nov. 2, 1945 to Aug. 25, 1971 water-stage recorder at site 0.8 miles upstream at datum 4,372.94 ft above mean sea level.

AVERAGE DISCHARGE.--36 years, 38.6 cfs (27,970 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 60 cfs Aug. 20 (gage height, 1.80 ft); minimum, 26 cfs Mar. 17-21.
Period of record: Maximum discharge, 104 cfs Aug. 4, 1956 (gage height, 1.64 ft); maximum gage height, 2.10 ft Aug. 12-24, Sept. 8-15, 1965; minimum discharge, 16 cfs July 22-25, 1941, and at times December 1941 to March 1942.

REMARKS.--Records fair. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1448: 1922-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	34	31	29	28	29	31	47	49	53	58
2	34	34	34	31	29	28	31	31	47	49	53	57
3	34	34	34	31	29	28	31	32	47	49	53	57
4	34	34	34	31	29	28	31	32	47	49	53	57
5	34	34	34	31	29	28	32	32	47	49	55	57
6	34	34	34	31	29	28	34	32	47	47	55	57
7	34	34	34	31	29	28	34	34	47	47	51	56
8	34	34	34	31	28	28	34	36	47	47	53	56
9	34	34	34	31	28	28	36	36	47	47	51	56
10	34	34	34	31	29	28	36	36	47	47	51	56
11	34	34	32	31	31	28	34	37	47	47	53	56
12	34	34	32	31	31	28	34	37	47	47	55	56
13	34	34	32	31	31	28	34	39	47	47	55	56
14	34	34	31	31	31	28	36	37	47	47	56	56
15	34	34	31	31	31	28	37	37	47	47	56	56
16	34	34	31	32	31	28	37	37	47	47	58	56
17	34	34	31	40	31	26	34	37	47	47	58	56
18	34	34	31	40	29	26	34	37	49	47	58	56
19	34	34	31	40	29	26	37	37	49	47	58	56
20	34	34	31	39	29	26	37	37	49	51	60	56
21	34	32	31	31	29	26	36	39	49	49	58	56
22	34	32	31	31	29	28	37	39	49	49	58	56
23	37	34	31	31	29	29	37	39	49	51	58	56
24	36	46	31	31	29	29	37	39	49	51	58	56
25	34	39	31	31	29	29	40	39	49	51	58	56
26	34	36	31	31	29	29	44	44	49	51	56	56
27	34	36	31	29	29	29	40	44	49	53	56	56
28	34	34	31	29	29	29	31	46	49	53	56	56
29	34	34	31	29	------	29	31	46	49	53	56	57
30	34	34	31	29	------	29	31	47	49	53	57	57
31	34	------	31	29	------	29	------	49	------	53	58	------
TOTAL	1,059	1,037	994	987	824	867	1,046	1,175	1,436	1,521	1,724	1,689
MEAN	34.2	34.6	32.1	31.8	29.4	28.0	34.9	37.9	47.9	49.1	55.6	56.3
MAX	37	46	34	40	31	29	44	49	49	53	60	58
MIN	34	32	31	29	28	26	29	31	47	47	51	56
AC-FT	2,100	2,060	1,970	1,960	1,630	1,720	2,070	2,330	2,850	3,020	3,420	3,350

CAL YR 1970 TOTAL 12,067 MEAN 33.1 MAX 46 MIN 28 AC-FT 23,930
WTR YR 1971 TOTAL 14,359 MEAN 39.3 MAX 60 MIN 26 AC-FT 28,480

14055500 Odell Creek near Crescent, Oreg.

LOCATION.--Lat 43°32'51", long 121°57'41", in SW¼SW¼ sec.25, T.23 S., R.6 E., Klamath County, on left bank 1,000 ft downstream from Odell Lake, 3 miles north of town of Crescent Lake, and 14 miles northwest of Crescent.

DRAINAGE AREA --39.0 sq mi.

PERIOD OF RECORD.--August, September 1911, August, September 1912, January, February, May to November 1913, April to August 1914, December 1923 to June 1924, May 1933 to current year. Gage heights and discharge measurements only August, September 1911, January 1913. Published as Odell Lake outlet near Crescent 1911-12. Records for January to July 1912, published in WSP 332, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,799.05 ft above mean sea level datum of 1929, supplementary adjustment of 1947. Prior to June 7, 1924, nonrecording gage at several sites within 700 ft of present site at various datums.

AVERAGE DISCHARGE.--38 years (1933-71), 80.8 cfs (28.13 inches per year, 58,540 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 455 cfs Jan. 19 (gage height, 1.59 ft); minimum, 22 cfs Jan. 9.
Period of record: Maximum discharge, 1,100 cfs Dec. 25, 1964 (gage height, 2.60 ft), from rating curve extended above 250 cfs; minimum, 9 cfs sometime during period Sept. 7-30, 1934.

REMARKS.--Records good. Flow affected occasionally in winter by ice jams at outlet of Odell Lake, and slightly affected at times by seiches in Odell Lake. No diversion above station.

REVISIONS (WATER YEARS).--WSP 754: Drainage area. WSP 794: WSP 1448: 1924, 1934(m). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	64	167	83	120	126	81	64	195	187	114	71
2	33	60	159	78	114	114	78	66	183	179	111	78
3	34	55	155	71	108	114	73	71	175	175	102	76
4	36	55	139	69	117	120	69	76	163	171	97	73
5	37	62	126	66	117	114	66	78	159	167	97	76
6	37	66	117	64	108	105	69	78	155	155	92	71
7	36	66	117	64	100	102	71	86	155	151	89	69
8	36	73	111	76	94	92	69	102	163	147	81	69
9	37	81	105	72	89	86	73	108	159	151	78	64
10	37	76	97	120	89	89	78	111	159	151	76	64
11	37	83	97	123	89	94	78	120	159	135	76	64
12	37	97	89	120	86	102	78	130	159	132	78	62
13	37	86	83	114	86	114	76	140	159	129	73	62
14	36	78	83	120	83	114	73	145	163	126	71	57
15	34	73	89	135	97	108	73	150	163	129	69	55
16	34	73	100	171	89	102	73	155	159	129	69	51
17	36	73	92	295	89	94	71	165	159	132	66	44
18	37	83	86	399	86	89	62	163	163	132	66	42
19	39	78	78	434	94	81	78	159	175	135	66	44
20	48	73	76	430	86	76	83	147	179	135	64	41
21	55	69	76	370	83	71	78	143	183	139	62	41
22	66	69	71	320	81	76	73	135	187	135	64	41
23	97	94	66	300	78	81	76	132	195	132	55	42
24	108	183	60	280	46	83	73	132	187	129	55	42
25	108	255	57	250	42	89	66	139	211	129	57	46
26	105	240	55	230	89	102	66	175	230	123	55	50
27	94	260	53	200	120	100	64	187	230	120	60	51
28	86	215	60	180	139	94	64	191	211	117	64	55
29	78	187	78	155	------	89	64	199	203	114	64	64
30	73	175	76	139	------	89	64	199	195	114	64	66
31	69	------	89	129	------	89	------	199	------	114	66	------
TOTAL	1,670	3,202	2,907	5,657	2,619	2,999	2,160	4,145	5,336	4,314	2,301	1,731
MEAN	53.9	107	93.8	182	93.5	96.7	72.0	134	178	139	74.2	57.7
MAX	108	260	167	434	139	126	83	199	230	187	114	78
MIN	33	55	53	64	42	71	62	64	155	114	55	41
AC-FT	3,310	6,350	5,770	11,220	5,190	5,950	4,280	8,220	10,580	8,560	4,560	3,430

CAL YR 1970 TOTAL 28,205 MEAN 77.3 MAX 349 MIN 22 AC-FT 55,940
WTR YR 1971 TOTAL 39,041 MEAN 107 MAX 434 MIN 33 AC-FT 77,440

14056000 Wickiup Reservoir near La Pine, Oreg.

LOCATION.--Lat 43°41'02", long 121°41'20", in SW¼NE¼ sec.7, T.22 S., R.9 E., Deschutes County, in Deschutes National Forest, in gate-chamber structure at Wickiup Dam on Deschutes River, 9.0 miles west of La Pine, and at mile 226.8.

DRAINAGE AREA.--482 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--December 1942 to current year. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Jan. 15, 1945, nonrecording gages at nearby sites at same datum.

EXTREMES.--Current year: Maximum contents observed, 195,400 acre-ft Apr. 24, 26, 27 (elevation, 4,337.24 ft); minimum observed, 9,230 acre-ft Oct. 1 (elevation, 4,285.48 ft).

Period of record: Maximum contents observed, 202,800 acre-ft Apr. 2, 1965 (elevation, 4,337.91 ft); minimum observed since reservoir first filled in March 1949, 534 acre-ft (revised on basis of computer expanded capacity table dated June 1970) Oct. 18, 1952 (elevation, 4,270.86 ft).

REMARKS.--Reservoir is formed by rock-faced, earth-fill dam completed in 1949. Some storage began in December 1942, capacity, 182,100 acre-ft (revised) between elevations 4,265.0 (no storage) and 4,336.0 ft (crest of spillway, with earth plug to elevation 4,339.0 ft). Crater Creek Canal diverts water above station to Tumalo Creek basin. Released water is diverted from Deschutes River at Bend for irrigation near Madras.

COOPERATION.--Daily elevations furnished by North Unit Irrigation District, and capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in Contents (acre-feet)
Sept.30	4,285.07	8,840	-
Oct. 31	4,299.61	27,820	+18,980
Nov. 30	4,315.34	62,200	+34,380
Dec. 31	4,324.70	95,100	+32,900
CAL YR 1970	-	-	-16,300
Jan. 31	4,329.93	127,500	+32,400
Feb. 28	4,333.33	156,000	+28,500
Mar. 31	4,336.18	184,000	+28,000
Apr. 30	4,337.21	195,100	+11,100
May 31	4,336.58	188,300	-6,800
June 30	4,334.48	166,800	-21,500
July 31	4,329.90	127,300	-39,500
Aug. 31	4,327.29	109,500	-17,800
Sept.30	4,327.98	113,800	+4,300
WTR YR 1971	-	-	+104,960

14056500 Deschutes River below Wickiup Reservoir, near La Pine, Oreg.

LOCATION.--Lat 43°41'10", long 121°41'13", in NW¼NE¼ sec.7, T.22 S., R.9 E., Deschutes County, on left bank 1,000 ft downstream from Wickiup Dam, 9 miles west of La Pine, and at mile 226.4.

DRAINAGE AREA.--483 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1938 to current year. Monthly discharge only June 1938, published in WSP 1318. Published as "near Lapine" 1938-64.

GAGE.--Water-stage recorder. Datum of gage is 4,257.41 ft above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--33 years, 739 cfs (535,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,930 cfs July 29-31 (gage height, 6.91 ft); minimum, 5.3 cfs Oct. 25.
Period of record: Maximum discharge, 2,280 cfs July 28 to Aug. 1, 1956, July 31, Aug. 1, 2, 1962; minimum 5 cfs Nov. 21, 1962, when gate was closed for outlet inspection and repair; minimum daily, 10 cfs Jan. 17, 1952.

REMARKS.--Records good. Flow regulated by Crane Prairie Reservoir (see station 14053500), and since 1942 by Wickiup Reservoir (see station 14056500). Some leakage from Crane Prairie and Wickiup Reservoirs does not pass station. Some spill bypassed station in 1955. Crater Creek canal diverts water above station to Tumalo Creek basin.

REVISIONS (WATER YEARS).--WSP 1448: 1944(m), 1947-51(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	724	20	25	25	26	25	27	584	620	1,440	1,920	1,280
2	724	20	25	26	26	25	27	721	449	1,510	1,840	1,140
3	724	20	25	32	26	25	30	718	449	1,530	1,790	1,120
4	721	21	25	36	25	25	30	707	464	1,560	1,790	1,070
5	721	20	25	36	25	25	30	735	551	1,580	1,720	1,060
6	718	20	26	36	25	25	31	721	788	1,630	1,620	1,080
7	682	21	26	36	25	25	31	805	920	1,670	1,630	1,090
8	662	21	26	36	25	25	32	872	1,040	1,690	1,640	1,100
9	658	21	26	36	25	25	32	976	1,190	1,740	1,640	1,100
10	658	22	26	37	25	25	32	945	1,230	1,800	1,640	1,100
11	662	22	26	37	25	25	32	872	1,420	1,850	1,660	1,110
12	665	22	26	35	25	25	162	878	1,490	1,860	1,650	1,140
13	665	22	26	29	25	25	245	875	1,500	1,840	1,650	1,220
14	665	23	26	25	25	25	288	875	1,560	1,840	1,580	1,220
15	662	23	26	25	25	25	380	892	1,620	1,840	1,510	1,270
16	662	23	26	25	25	25	377	976	1,640	1,850	1,390	1,270
17	658	23	26	26	25	25	380	970	1,650	1,810	1,400	1,330
18	659	23	26	25	25	25	368	952	1,640	1,760	1,400	1,390
19	658	24	25	25	25	25	368	906	1,600	1,780	1,380	1,370
20	654	24	24	24	25	25	368	833	1,560	1,790	1,380	1,380
21	623	24	24	24	25	25	440	756	1,550	1,790	1,380	1,380
22	548	24	22	24	25	26	419	770	1,550	1,830	1,380	1,380
23	551	25	23	24	25	26	434	917	1,570	1,860	1,380	1,380
24	380	25	25	24	25	26	434	962	1,570	1,880	1,380	1,380
25	32	25	26	24	25	26	434	1,180	1,560	1,890	1,380	1,380
26	19	25	25	25	25	26	443	906	1,550	1,900	1,380	1,380
27	20	25	25	25	25	26	509	665	1,530	1,910	1,380	1,380
28	19	25	25	25	25	27	536	696	1,500	1,920	1,380	1,380
29	20	25	25	25	------	27	560	721	1,520	1,920	1,380	1,040
30	20	25	25	26	------	26	560	791	1,510	1,930	1,380	693
31	19	------	25	26	------	26	------	896	------	1,920	1,380	------
TOTAL	15,852	683	782	884	703	787	8,039	26,073	38,791	55,120	47,410	36,613
MEAN	511	22.8	25.2	28.5	25.1	25.4	268	841	1,293	1,778	1,529	1,220
MAX	724	25	26	37	26	27	560	1,180	1,650	1,930	1,920	1,390
MIN	19	20	22	24	25	25	27	584	449	1,440	1,380	693
AC-FT	31,440	1,350	1,550	1,750	1,390	1,560	15,950	51,720	76,940	109,300	94,040	72,620

CAL YR 1970 TOTAL 262,316 MEAN 719 MAX 1,850 MIN 19 AC-FT 520,300
WTR YR 1971 TOTAL 231,737 MEAN 635 MAX 1,930 MIN 19 AC-FT 459,700

14057500 Fall River near La Pine, Oreg.

LOCATION.--Lat 43°47'48", long 121°34'18", in NW¼SE¼ sec.31, T.20 S., R.10 E., Deschutes County, on left bank 50 ft downstream from pond spillway at State fish hatchery, 9 miles northeast of La Pine, and at mile 4.8.

DRAINAGE AREA.--45.1 sq mi, hydrologic drainage boundary undertain owing to ground-water exchange.

PERIOD OF RECORD.--July 1938 to current year. Records for May to September 1912 at site 3 miles downstream not equivalent owing to difference in drainage area. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (by barometer).

AVERAGE DISCHARGE.--33 years, 151 cfs (109,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 202 cfs May 8 (gage height, 1.65 ft); minimum, 91 cfs Mar. 8.
Period of record: Maximum discharge, 254 cfs June 5, 1965 (gage height, 2.02 ft); minimum, 67 cfs sometime during period Sept. 20-30, 1969.

REMARKS.--Records good. Diversion only to ponds at fish hatchery 50 ft above station, from which water returns to river above station. Stream is spring fed and momentary extremes are caused by operation of fish hatchery.

REVISIONS (WATER YEARS).--WSP 984: 1938-42(M,m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	124	126	122	124	128	139	169	166	161	156	150
2	124	124	126	121	124	130	139	169	166	161	156	150
3	124	124	126	121	124	130	140	171	166	161	156	148
4	124	124	124	120	126	130	140	171	166	159	156	148
5	124	124	124	120	126	130	142	171	166	159	156	148
6	124	124	124	120	126	130	144	171	166	159	155	148
7	124	124	124	121	126	130	145	172	166	159	155	148
8	124	126	124	121	126	130	147	174	166	159	155	148
9	124	124	124	122	126	130	150	171	166	159	155	148
10	124	124	124	122	126	130	151	171	166	161	155	148
11	124	126	124	122	127	133	151	171	166	161	155	148
12	124	126	124	122	127	133	153	171	166	159	155	148
13	124	124	124	122	127	133	153	171	166	159	155	148
14	124	124	124	124	127	133	155	169	164	159	155	148
15	124	124	124	124	127	133	156	169	164	158	155	147
16	124	124	124	126	127	133	158	169	164	158	153	147
17	124	124	124	130	127	132	159	169	164	158	153	147
18	124	124	124	127	127	132	161	169	164	158	153	147
19	124	124	124	127	127	132	163	169	163	158	153	147
20	124	124	124	126	127	132	164	167	163	158	153	147
21	124	124	124	126	127	132	164	167	163	158	153	147
22	124	124	124	126	128	136	166	167	163	158	151	147
23	127	126	122	126	128	136	166	167	163	158	151	147
24	127	127	122	126	130	136	166	167	163	158	151	147
25	127	124	122	126	130	138	167	167	163	158	151	147
26	126	124	122	126	130	138	167	167	163	158	151	147
27	124	126	122	126	130	138	167	167	163	158	151	147
28	124	126	122	126	130	138	167	167	163	158	151	147
29	124	126	122	124	------	138	167	167	163	158	151	148
30	124	126	122	124	------	139	169	167	163	158	151	148
31	124	------	122	124	------	138	------	167	------	158	151	------
TOTAL	3,855	3,739	3,832	3,840	3,557	4,131	4,676	5,241	4,934	4,922	4,758	4,430
MEAN	124	125	124	124	127	133	156	169	164	159	153	148
MAX	127	127	126	130	130	139	169	174	166	161	156	150
MIN	124	124	122	120	124	128	139	167	163	158	151	147
AC-FT	7,650	7,420	7,600	7,620	7,060	8,190	9,270	10,400	9,790	9,760	9,440	8,790

CAL YR 1970 TOTAL 46,082 MEAN 126 MAX 136 MIN 118 AC-FT 91,400
WTR YR 1971 TOTAL 51,915 MEAN 142 MAX 174 MIN 120 AC-FT 103,000

DESCHUTES RIVER BASIN

14059500 Crescent Lake near Crescent, Oreg.

LOCATION.--Lat 43°30'05", long 121°58'20", in SW¼ sec.11, T.24 S., R.6 E., Klamath County, Deschutes National Forest, on outlet works at dam on Crescent Creek, 0.8 mile south of town of Crescent Lake, 14 miles west of Crescent, and at mile 30.0.

DRAINAGE AREA.--60.7 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--August 1922 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1956, nonrecording gage at nearby site at datum 4,825.16 ft above mean sea level. Oct. 1, 1956, to Sept. 12, 1966, nonrecording gage, at present site and datum.

EXTREMES.--Current year: Maximum contents, 71,720 acre-ft July 10 (elevation, 4,841.63 ft); minimum, 23,550 acre-ft Oct. 16 (elevation, 4,828.67 ft).

Period of record: Maximum contents observed, 79,970 acre-ft Mar. 8, 1957 (elevation 4,843.76 ft); minmmum observed, 9,640 acre-ft Oct. 21, 1931 (elevation, 4,827.91 ft).

REMARKS.--Reservoir originally formed by dam of earth and logs completed in 1922, reconstructed as earth-fill dam in 1956. Capacity, 117,200 acre-ft between elevations 4,821.5 (sill of outlet gate) and 4,853.0 ft (crest of spillway). Maximum allowable storage, 86,050 acre-ft (elevation, 4,845.32 ft). Dead storage about 500,000 acre-ft (Oregon Game Commission survey). Records given herein represent usable contents. Water surface probably cannot be lowered below elevation 4,823.4 ft owing to natural flow through reservoir. Released water is diverted from Deschutes River at Bend for irrigation near Tumalo.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1318: 1922-31. WSP 1448: 1923-31(M,m).

MONTHEND ELEVATIONS AND USABLE CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,828.75	23,840	-
Oct. 31	4,829.19	25,380	+1,540
Nov. 30	4,830.79	31,120	+5,740
Dec. 31	4,831.78	34,710	+3,590
CAL YR 1970	-	-	+2,510
Jan. 31	4,833.92	42,540	+7,830
Feb. 28	4,834.83	45,920	+3,380
Mar. 31	4,835.73	49,280	+3,360
Apr. 30	4,836.10	50,650	+1,370
May 31	4,838.66	60,340	+9,690
June 30	4,841.20	70,070	+9,730
July 31	4,840.69	68,090	-1,980
Aug. 31	4,837.65	56,500	-11,590
Sept.30	4,835.08	46,850	-9,650
WTR YR 1971	-	-	+23,010

14060000 Crescent Creek at Crescent Lake, near Crescent, Oreg.

LOCATION.--Lat 43°30'11", long 121°58'20", in SE¼SW¼ sec.11, T.24 S., R.6 E., Klamath County, Deschutes National Forest, on left bank 400 ft downstream from Crescent Lake Dam, 0.5 mile south of town of Crescent Lake, 14 miles west of Crescent, and at mile 29.9.

DRAINAGE AREA.--60.7 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--January to September 1911 (gage heights and discharge measurements only), January 1912 to July 1915, July to September 1927, May 1928 to current year. Published as Crescent Lake outlet near Crescent January 1911 to September 1912, and as Crescent Creek at outlet of Crescent Lake, near Crescent October 1913 to July 1915.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 4,819.96 ft above mean sea level. See WSP 1935 for history of changes prior to Sept. 11, 1956.

AVERAGE DISCHARGE.--45 years (1912-14, 1928-71), 56.2 cfs (40,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 242 cfs Aug. 16 (gage height, 2.74 ft); minimum, 1.2 cfs Nov. 16-18.
Period of record: Maximum discharge, 313 cfs July 9, 1929, Aug. 9, 1936; no flow at times.

REMARKS.--Records good. Flow regulated since 1922 by Crescent Lake (see station 14059500). No diversion above station.

REVISIONS.--WSP 1218: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	2.5	1.6	2.8	4.0	5.0	6.0	6.1	6.5	21	214	233
2	42	2.5	1.8	2.8	4.0	5.0	6.0	6.1	6.9	21	212	232
3	42	2.5	1.8	3.0	4.0	5.0	6.0	6.1	6.9	21	211	232
4	42	2.5	1.8	3.2	4.0	5.0	6.0	6.1	6.1	21	208	230
5	42	2.5	1.8	3.5	4.0	5.0	6.0	6.1	5.3	21	207	230
6	42	2.5	1.8	3.2	4.0	5.0	6.0	6.1	4.5	21	207	230
7	42	2.5	2.0	3.0	4.0	5.0	6.0	6.1	4.0	21	207	229
8	42	2.5	2.0	3.0	4.0	5.0	6.0	6.1	3.5	22	205	229
9	42	2.5	2.0	3.0	4.0	5.0	6.0	6.1	3.8	22	205	229
10	42	2.5	2.0	3.0	4.0	5.0	6.0	6.1	4.2	71	205	228
11	42	2.2	2.0	3.0	4.0	5.0	6.0	6.5	4.2	109	204	226
12	42	2.2	2.0	3.0	4.0	5.0	6.0	6.9	4.2	109	204	225
13	42	2.0	2.0	3.0	4.0	5.0	6.0	6.9	4.5	109	203	225
14	41	1.8	2.0	3.0	4.0	5.0	6.0	6.9	4.5	134	203	225
15	41	1.8	2.0	2.8	4.0	5.0	6.0	6.9	5.3	191	202	225
16	41	1.2	2.2	2.8	4.5	5.5	6.0	6.5	5.7	191	223	223
17	41	1.2	2.2	2.8	4.5	5.5	6.0	6.5	6.5	191	240	223
18	41	1.2	2.2	2.8	4.5	5.5	6.0	6.5	6.9	190	240	222
19	41	1.4	2.5	3.0	4.5	5.5	6.0	6.5	7.3	188	239	221
20	41	1.4	2.5	3.0	4.5	5.5	6.0	6.5	8.1	188	239	219
21	41	1.4	2.5	3.2	4.5	5.5	6.0	6.5	8.1	188	237	219
22	27	1.4	2.5	3.5	4.5	5.5	6.0	6.5	8.5	188	237	218
23	3.5	1.4	2.8	3.8	4.5	5.5	6.1	6.5	8.5	187	237	216
24	2.8	1.6	2.8	3.8	4.5	5.5	6.1	6.5	9.0	187	237	216
25	2.8	1.6	2.5	3.8	4.5	5.5	6.1	6.1	9.0	186	237	215
26	2.5	1.6	2.5	4.0	4.5	5.5	6.1	5.7	9.4	186	236	214
27	2.5	1.6	2.5	4.0	4.5	5.5	6.1	5.7	9.4	185	236	214
28	2.5	1.6	2.5	4.0	4.5	5.5	6.1	5.7	9.4	198	235	212
29	2.5	1.6	2.8	4.0	------	5.5	6.1	5.3	15	215	235	212
30	2.5	1.6	2.8	4.0	------	5.5	6.1	6.1	21	214	233	98
31	2.5	------	2.8	4.0	------	5.5	------	6.1	------	214	233	------
TOTAL	925.1	56.8	69.2	101.8	118.5	163.0	180.8	194.3	216.2	4,010	6,871	6,570
MEAN	29.8	1.89	2.23	3.28	4.23	5.26	6.03	6.27	7.21	129	222	219
MAX	42	2.5	2.8	4.0	4.5	5.5	6.1	6.9	21	215	240	233
MIN	2.5	1.2	1.6	2.8	4.0	5.0	6.0	5.3	3.5	21	202	98
AC-FT	1,830	113	137	202	235	323	359	385	429	7,950	13,630	13,030

CAL YR 1970 TOTAL 17,990.4 MEAN 49.3 MAX 266 MIN 1.2 AC-FT 35,680
WTR YR 1971 TOTAL 19,476.7 MEAN 53.4 MAX 240 MIN 1.2 AC-FT 38,630

NOTE.--No gage-height record Feb. 6 to Apr. 22.

14063000 Little Deschutes River near La Pine, Oreg.

LOCATION.--Lat 43°41'21", long 121°30'06", in SW¼SW¼ sec.2, T.22 S., R.10 E., Deschutes County, on right bank 10 ft downstream from highway bridge at former town of Rosland, 1.1 miles north of La Pine, and at mile 26.8.

DRAINAGE AREA.--859 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--September 1910 to January 1911, March, April, August 1911, March to September 1912, June to October 1913, June to November 1918, August to October 1920, May 1924 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as Deschutes River near Lapine 1910-12, as East Fork Deschutes River near Lapine 1913-20, and as Little Deschutes River near Lapine 1924-64.

GAGE.--Water-stage recorder. Datum of gage is 4,192.81 ft above mean sea level. Sept. 1, 1910, to Aug. 31, 1911, nonrecording gage at present site at different datum. Mar. 1 to Sept. 30, 1912, nonrecording gage at site 1.2 miles downstream at different datum. June 1, 1913, to Sept. 28, 1928, nonrecording gage and Sept. 29, 1928, to Sept. 30, 1931, water-stage recorder at present site at different datums.

AVERAGE DISCHARGE.--47 years (1924-71), 201 cfs (145,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 906 cfs Jan. 24 (gage height, 7.46 ft); minimum, 73 cfs Oct. 31.
Period of record: Maximum discharge, 3,660 cfs Dec. 25, 1964 (gage height, 8.18 ft); minimum, 8 cfs Sept. 2, 3, 1931.

REMARKS.--Records good. Flow regulated since 1922 by Crescent Lake (see station 14063000). Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1218: 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	77	204	104	545	160	285	524	655	349	335	311
2	83	75	172	102	484	160	276	539	662	324	332	324
3	82	75	160	100	430	155	283	551	658	297	328	332
4	81	74	142	100	364	155	300	553	623	274	322	338
5	81	77	131	100	329	150	310	584	586	264	318	332
6	80	97	147	100	303	150	328	617	547	256	314	325
7	80	124	186	100	294	150	357	619	511	246	311	324
8	81	117	211	100	273	150	376	627	480	238	308	321
9	82	121	190	100	256	150	372	639	446	235	306	315
10	82	158	166	100	276	150	386	676	442	239	306	311
11	81	157	142	98	336	150	414	676	442	238	301	308
12	79	156	119	98	372	150	396	673	442	269	289	303
13	78	173	109	97	386	150	359	679	439	285	294	301
14	77	153	110	96	379	150	350	694	422	280	292	299
15	77	122	115	96	356	150	359	718	418	259	290	296
16	77	107	119	95	341	150	390	718	409	281	289	294
17	76	101	112	98	328	150	412	721	390	320	289	294
18	77	99	116	100	296	160	406	734	388	331	300	296
19	77	96	109	110	270	171	374	712	374	335	304	294
20	81	93	110	250	244	190	366	691	374	341	306	294
21	91	88	108	450	237	204	396	673	367	343	304	293
22	100	107	112	556	240	224	394	648	353	343	306	292
23	119	142	113	715	238	281	385	625	350	339	310	290
24	143	144	112	832	234	335	394	604	349	331	311	289
25	152	314	110	734	226	357	390	581	352	322	315	290
26	134	414	103	712	212	386	376	583	359	317	313	293
27	107	464	109	688	189	362	409	595	382	311	315	300
28	88	408	110	641	161	314	454	648	386	307	317	308
29	77	328	116	614	------	296	488	662	382	303	317	317
30	77	238	115	597	------	303	516	650	370	307	311	331
31	76	------	106	579	------	308	------	650	------	325	308	------
TOTAL	2,760	4,899	4,084	9,262	8,599	6,471	11,301	19,864	13,358	9,209	9,561	9,215
MEAN	89.0	163	132	299	307	209	377	641	445	297	308	307
MAX	152	464	211	832	545	386	516	734	662	349	335	338
MIN	76	74	103	95	161	150	276	524	349	235	289	289
AC-FT	5,470	9,720	8,100	18,370	17,060	12,840	22,420	39,400	26,500	18,270	18,960	18,280

CAL YR 1970 TOTAL 68,232 MEAN 187 MAX 610 MIN 71 AC-FT 135,300
WTR YR 1971 TOTAL 108,583 MEAN 297 MAX 832 MIN 74 AC-FT 215,400

14064500 Deschutes River at Benham Falls, near Bend, Oreg.

LOCATION.--Lat 43°55'49", long 121°24'39", in SW¼NE¼ sec.16, T.19 S., R.11 E., Deschutes County, Deschutes National Forest, on right bank 0.5 mile upstream from Benham Falls, 10 miles southwest of Bend, and at mile 181.4.

DRAINAGE AREA.--1,759 sq mi.

PERIOD OF RECORD.--April 1906 to September 1913, April to September 1914, August to December 1920, April to September 1921, February 1924 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "at West's ranch, near Lava" April 1906 to February 1909, April to September 1914. Records for January 1905 to March 1906 and October 1913 to September 1914, published under present name in WSP 370 and 394, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,142.10 ft above mean sea level (Bureau of Reclamation bench mark). See WSP 1738 for history of changes prior to Nov. 20, 1958.

AVERAGE DISCHARGE.--54 years (1906-13, 1924-71), 1,401 cfs (1,015,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,680 cfs July 31 (gage height, 6.30 ft); minimum, 420 cfs Nov. 23.
Period of record: Maximum discharge, 5,000 cfs (estimated) Nov. 27, 1909 (gage height not determined); minimum, 363 cfs Jan. 20, 1962.

REMARKS.--Records good. Flow regulated by Crane Prairie Reservoir, Crescent Lake, and Wickiup Reservoir. Many diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,300	540	756	528	1,020	595	812	1,500	2,020	2,380	2,670	2,120
2	1,250	540	700	500	1,010	640	800	1,560	1,770	2,360	2,660	2,090
3	1,240	530	648	500	954	665	788	1,620	1,640	2,340	2,630	1,930
4	1,240	530	595	518	936	690	788	1,570	1,610	2,340	2,570	1,870
5	1,230	530	609	514	874	704	800	1,570	1,610	2,340	2,550	1,870
6	1,230	528	623	525	816	676	812	1,560	1,640	2,340	2,520	1,870
7	1,220	532	654	522	768	690	824	1,560	1,680	2,360	2,450	1,870
8	1,200	564	672	532	748	686	844	1,610	1,830	2,390	2,410	1,880
9	1,180	581	682	553	740	704	864	1,790	1,980	2,400	2,400	1,880
10	1,170	574	665	560	764	704	887	2,010	2,100	2,420	2,390	1,870
11	1,170	602	648	556	784	704	887	2,010	2,150	2,480	2,390	1,870
12	1,170	623	578	556	808	724	910	2,000	2,300	2,520	2,390	1,870
13	1,170	609	532	553	848	736	982	2,010	2,380	2,570	2,380	1,880
14	1,170	612	574	528	869	728	1,100	2,000	2,410	2,570	2,370	1,920
15	1,170	609	578	560	887	708	1,130	2,000	2,450	2,570	2,350	1,940
16	1,170	578	581	592	864	693	1,200	2,050	2,510	2,570	2,300	1,970
17	1,170	556	556	724	840	668	1,230	2,190	2,520	2,570	2,210	1,990
18	1,170	546	518	820	824	658	1,260	2,220	2,550	2,570	2,170	2,020
19	1,160	542	518	848	796	654	1,260	2,220	2,550	2,550	2,160	2,100
20	1,160	539	525	852	740	648	1,240	2,170	2,510	2,550	2,150	2,100
21	1,160	532	547	844	736	662	1,220	2,030	2,460	2,570	2,130	2,110
22	1,150	522	536	860	720	693	1,280	1,860	2,430	2,570	2,130	2,110
23	1,140	469	539	869	724	768	1,280	1,750	2,420	2,610	2,130	2,110
24	1,120	654	528	882	728	808	1,280	1,950	2,420	2,670	2,130	2,110
25	1,050	651	518	1,130	728	840	1,280	1,990	2,420	2,670	2,120	2,100
26	900	712	532	1,320	693	905	1,300	2,160	2,420	2,670	2,120	2,110
27	600	800	532	1,240	682	910	1,290	2,010	2,400	2,670	2,120	2,110
28	600	836	532	1,180	612	892	1,350	1,750	2,390	2,670	2,120	2,110
29	580	869	539	1,100	------	852	1,400	1,700	2,370	2,670	2,120	2,130
30	560	844	528	1,060	------	820	1,460	1,660	2,390	2,670	2,120	2,010
31	540	------	539	1,030	------	812	------	1,810	------	2,670	2,120	------
TOTAL	33,540	18,154	18,077	23,356	22,513	22,637	32,558	57,890	66,330	78,300	71,480	59,920
MEAN	1,082	605	583	753	804	730	1,085	1,867	2,211	2,526	2,306	1,997
MAX	1,300	869	756	1,320	1,020	910	1,460	2,220	2,550	2,670	2,670	2,130
MIN	540	469	518	500	612	595	788	1,500	1,610	2,340	2,120	1,870
AC-FT	66,530	36,010	35,860	46,330	44,650	44,900	64,580	114,800	131,600	155,300	141,800	118,900

CAL YR 1970 TOTAL 482,289 MEAN 1,321 MAX 2,470 MIN 452 AC-FT 956,600
WTR YR 1971 TOTAL 504,755 MEAN 1,383 MAX 2,670 MIN 469 AC-FT 1,001,000

DESCHUTES RIVER BASIN

Diversions from Deschutes River near Bend, Oreg.

The following six canals, all in Deschutes County, which are equipped with water-stage recorders, are the only diversions from Deschutes River between gaging stations at Benham Falls and below Bend.

14065500 Arnold Canal near Bend diverts at mile 174.5 from right bank at head of Lava Island, in SW¼ sec.27, T.18 S., R.11 E.; water used for irrigation southeast of Bend. Records available, October 1912 to current year.

14066500 Central Oregon Canal above Pilot Butte Canal, near Bend diverts at mile 169.5 from right bank in NE¼ sec.13, T.18 S., R.11 E., water used for irrigation east of Bend. Beginning Oct. 1, 1932, record obtained upstream from intake of Pilot Butte Canal. Records available October 1932 to current year.

14068500 Deschutes County Municipal Improvement District Canal at Bend diverts at mile 165.8 from left bank in SW¼SE¼ sec.29, T.17 S., R.12 E., at Bend; water stored in Crescent Lake for Tumalo project is diverted by this canal and supplements flow in Tumalo project feed canal for irrigation near Tumalo. Records available May 1923 to current year.

1406[illegible]00 North Unit main canal near Bend diverts at mile 164.8 from right bank to NE¼ sec.29, T.17 S., R.12 E., water used for irrigation near Madras. Records available October 1945 to current year.

14069500 North Canal near Bend diverts at mile 164.8 from right bank in NE¼ sec.29, T.17 S., R.12 E., water used for irrigation north of Bend, mostly near Redmond. Records available June 1913 to current year.

14070000 Swalley Canal near Bend diverts at mile 164.8 from right bank in NE¼ sec.29, T.17 S., R.12 E., water used for irrigation north of Bend. Records available 1913 to current year.

Records of monthly discharge of these canals, published as a group, are available from October 1926 to current year; records for each canal published separately prior to 1926.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Arnold Canal	Central Oregon Canal	Deschutes County Municipal Improvement District Canal	North Unit main canal	North Canal	Swalley Canal	Total
October	3,810	16,670	2,000	16,800	13,150	3,050	55,480
November	365	2,410	1,180	0	1,640	565	6,160
December	127	3,030	0	0	1,050	234	4,441
January	680	1,860	0	0	1,790	363	4,693
February	252	2,240	0	0	1,590	619	4,701
March	244	2,000	0	0	1,610	415	4,269
April	1,210	12,800	0	14,400	11,530	2,590	42,530
May	5,110	29,510	472	37,540	29,620	5,670	107,922
June	6,360	31,490	323	43,010	31,720	6,960	119,863
July	7,320	34,320	6,310	52,530	34,740	6,500	141,720
August	6,960	34,440	6,970	40,140	35,530	7,170	131,210
September	5,810	31,640	6,780	27,980	29,950	5,500	107,660
WTR YR 1971	38,260	202,400	24,050	232,400	193,900	39,640	730,650

14070500 Deschutes River below Bend, Oreg.

LOCATION.--Lat 44°04'59", long 121°18'24", in SE¼SE¼ sec.20, T.17 S., R.12 E., Deschutes County, on right bank 0.4 mile downstream from North Canal, 0.5 mile north of Bend city limits, and at mile 164.4.

DRAINAGE AREA.--1,899 sq mi.

PERIOD OF RECORD.--October 1914 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,503.96 ft above mean sea level. Prior to Oct. 1, 1931, water-stage recorder at site 200 ft downstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--57 years, 523 cfs (378,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,390 cfs Jan. 26 (gage height, 3.75 ft); minimum, 5.5 cfs Oct. 26.
Period of record: Maximum discharge, 2,820 cfs Dec. 27, 1964 (gage height, 4.90 ft); maximum gage height, 5.38 ft Dec. 15, 1932 (backwater from ice); minimum discharge, 1.0 cfs Aug. 25, 1930.
Maximum discharge near this site since 1905, 4,820 cfs Nov. 27, 1909.

REMARKS.--Records good. Flow regulated by powerplant at Bend, Crescent Lake, Crane Prairie Reservoir, and Wickiup Reservoir (see elsewhere in this report). Six large canals and several small ditches divert water above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1318: 1916-18(M), 1926(M), 1931(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	450	685	455	870	484	734	26	24	27	41	23
2	33	460	608	435	838	508	720	26	23	25	36	23
3	33	472	568	450	814	574	706	26	22	25	34	24
4	33	472	496	440	790	580	699	25	27	26	32	24
5	33	472	472	440	741	594	678	24	26	26	35	24
6	34	478	490	440	692	580	664	25	27	26	34	24
7	33	472	526	460	678	496	678	26	27	26	30	27
8	33	496	550	440	650	325	699	26	30	27	28	25
9	32	532	556	420	657	345	479	31	34	31	27	24
10	32	532	556	420	671	340	562	33	33	32	27	26
11	32	550	532	405	692	320	334	32	32	32	26	33
12	32	568	484	430	713	544	79	31	32	31	22	30
13	31	568	430	445	748	562	47	32	34	32	22	32
14	31	562	445	435	692	484	36	31	34	31	22	30
15	31	568	460	455	574	410	33	30	35	30	22	33
16	30	550	460	425	532	395	32	31	92	28	22	38
17	30	520	440	420	514	385	31	31	64	30	22	35
18	30	514	420	478	496	415	31	31	63	28	22	38
19	28	472	430	460	594	556	30	30	64	28	22	36
20	30	425	314	435	671	550	28	30	55	30	22	40
21	30	319	180	500	538	556	27	28	46	28	22	66
22	30	250	204	783	430	580	27	27	35	28	22	79
23	30	350	333	798	430	643	27	26	31	28	22	86
24	29	152	385	806	420	685	27	26	31	27	22	88
25	27	64	395	910	471	727	27	26	31	27	23	98
26	83	66	430	1,240	568	790	28	27	31	28	22	102
27	256	210	478	1,140	550	814	31	26	28	30	21	149
28	450	562	472	1,060	496	798	27	22	28	32	21	162
29	440	608	466	998	------	776	27	22	27	34	21	200
30	420	699	466	950	------	748	26	22	27	33	22	281
31	420	------	460	894	------	727	------	22	------	34	22	------
TOTAL	2,348	13,413	14,191	18,867	17,530	17,291	7,574	851	1,093	900	788	1,900
MEAN	91.9	447	458	609	626	558	252	27.5	36.4	29.0	25.4	63.3
MAX	450	699	685	1,240	870	814	734	33	92	34	41	281
MIN	27	64	180	405	420	320	26	22	22	25	21	23
AC-FT	5,650	26,600	28,150	37,420	34,770	34,300	15,020	1,690	2,170	1,790	1,560	3,770

CAL YR 1970 TOTAL 87,090 MEAN 239 MAX 1,060 MIN 20 AC-FT 172,700
WTR YR 1971 TOTAL 97,246 MEAN 266 MAX 1,240 MIN 21 AC-FT 192,900

14073000 Tumalo Creek near Bend, Oreg.

LOCATION.--Lat 44°05'16", long 121°22'18", in NW¼SE¼ sec.23, T.17 S., R.11 E., Deschutes County, on left bank 0.25 mile upstream from Tumalo feed canal, 4 miles northwest of Bend, and at mile 3.1.

DRAINAGE AREA.--47.3 sq mi.

PERIOD OF RECORD.--October 1913 to December 1921, February, April to November 1922, March 1923 to current year. Published as "below Bend" 1949-50.

GAGE.--Water-stage recorder. Datum of gage is 3,566.82 ft above mean sea level. Prior to Apr. 27, 1915, nonrecording gage and Apr. 27, 1915, to Sept. 30, 1918, water-stage recorder or nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--53 years (1913-14, 1916-21, 1923-35, 1936-71), 102 cfs (73,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 783 cfs June 25; minimum daily, 21 cfs Aug. 1.
Period of record: Maximum discharge, 1,140 cfs Nov. 9, 1968 (no flow in canal), from rating curve extended above 780 cfs on basis of slope-area measurement at 3.45 ft; minimum daily, 25 cfs Jan. 3, 1924.

REMARKS.--Records fair. All records given herein include flow in Columbia Southern Canal, which diverts 8 miles above station for irrigation of land near Tumalo. No flow in the canal Oct. 1 to May 2. Crater Creek Canal diverts flow of tributaries of Soda Creek into head of Tumalo Creek. Diversion above station for municipal supply of Bend began Dec. 15, 1926, and averaged 8.1 cfs for water year 1971.

REVISIONS (WATER YEARS).--WSP 864: 1937. WSP 1218: Drainage area. WSP 1448: 1923(M), 1927-29(M), 1935-38(M), 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	64	79	68	89	74	66	87	225	294	21	116
2	53	64	77	70	87	74	66	97	205	291	77	130
3	53	64	77	70	87	72	66	133	191	270	113	97
4	53	66	89	70	79	72	66	144	209	265	106	88
5	57	73	83	70	79	70	68	138	218	270	99	84
6	59	69	83	70	77	70	71	121	246	264	96	93
7	57	68	81	70	75	69	73	120	265	235	91	84
8	57	69	75	70	71	69	71	165	263	227	90	78
9	59	71	73	71	71	69	75	168	261	246	89	78
10	59	66	71	73	150	69	75	181	264	263	100	78
11	59	73	71	75	135	69	75	191	279	209	95	79
12	59	71	70	77	115	68	71	217	275	207	91	78
13	59	68	70	85	115	68	73	223	281	215	90	74
14	59	68	71	83	108	68	71	201	261	241	90	76
15	60	68	69	85	106	66	73	212	261	273	87	74
16	60	73	69	97	97	66	75	210	266	281	85	73
17	60	69	70	199	95	66	75	179	257	273	82	72
18	62	68	70	324	93	65	73	161	360	271	80	71
19	64	68	70	338	91	64	71	157	406	273	79	70
20	68	68	70	299	87	64	75	152	402	283	83	72
21	69	66	70	250	85	64	73	145	394	241	85	72
22	68	68	68	220	85	68	71	151	421	210	94	71
23	71	113	68	188	81	69	71	175	456	188	85	71
24	66	278	68	158	83	69	71	206	368	147	78	72
25	66	180	68	148	77	69	73	243	641	142	75	77
26	64	125	68	138	76	69	73	274	474	114	76	77
27	64	106	68	132	75	68	77	292	329	118	78	76
28	64	95	68	130	75	68	77	339	273	123	78	76
29	64	91	66	125	------	68	75	348	253	102	89	77
30	64	87	69	106	------	69	79	287	265	84	82	78
31	64	------	68	91	------	68	------	256	------	47	95	------
TOTAL	1,894	2,577	2,237	4,050	2,544	2,121	2,169	5,973	9,269	6,647	2,659	2,412
MEAN	61.1	85.9	72.2	131	90.9	68.4	72.3	193	309	214	85.8	80.4
MAX	71	278	89	338	150	74	79	348	641	294	113	130
MIN	53	64	66	68	71	64	66	87	191	47	21	70
AC-FT	3,760	5,110	4,440	8,030	5,050	4,210	4,300	11,850	18,390	13,180	5,270	4,780

CAL YR 1970 TOTAL 33,566 MEAN 92.0 MAX 322 MIN 44 AC-FT 66,580
WTR YR 1971 TOTAL 44,552 MEAN 122 MAX 641 MIN 21 AC-FT 88,370

14075000 Squaw Creek near Sisters, Oreg.

LOCATION.--Lat 44°14'02", long 121°33'57", in SE¼SW¼ sec.29, T.15 S., R.10 E., Deschutes County, on right bank 800 ft upstream from intake of McAllister ditch, 4 miles south of Sisters, and at mile 26.8.

DRAINAGE AREA.--54.8 sq mi.

PERIOD OF RECORD.--July 1906 to October 1918, June to August 1919, October 1919 to September 1920, May 1921 to September 1924 (no winter records), April 1925 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 3,490 ft (by barometer). July 1, 1906, to May 29, 1913, nonrecording gage at site 1,000 ft downstream at different datum, below intake of McAllister ditch (records include flow in McAllister ditch). May 30, 1913, to Sept. 2, 1915, nonrecording gage and Mar. 24, 1916, to Oct. 5, 1928, water-stage recorder at site 300 ft downstream at different datum. Oct. 6, 1928, to Nov. 7, 1967, water-stage recorder at site 200 ft downstream at datum 2.64 ft lower.

AVERAGE DISCHARGE.--59 years (1906-18, 1919-20, 1925-71), 106 cfs (76,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 815 cfs June 25 (gage height, 4.13 ft); minimum not determined, occurred during period Nov. 12-24.

Period of record: Maximum discharge since 1909, 1,980 cfs Dec. 23, 1964, from rating curve extended above 280 cfs on basis of slope-area measurement of peak flow; maximum gage height, about 8.75 ft (over top of gage) Nov. 22, 1909, site and datum then in use (discharge not determined); minimum discharge, 14 cfs Mar. 2, 1966.

REMARKS.--Records good. No regulation. A canal near mouth of Pole Creek, a tributary above station, diverts entire flow of that creek for irrigation of lands near Sisters.

REVISIONS.--WSP 1218: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	37	80	55	132	86	64	82	210	372	258	185
2	61	37	74	54	125	92	64	90	192	372	249	175
3	61	37	70	54	120	78	62	110	195	337	231	130
4	60	36	78	54	115	82	64	125	210	337	228	118
5	60	41	97	54	110	80	67	122	225	337	225	112
6	58	37	86	54	106	78	70	110	246	330	213	118
7	57	35	86	54	101	72	70	112	264	315	208	106
8	60	43	74	54	99	70	70	152	264	309	202	103
9	57	42	68	54	99	68	78	158	264	327	200	103
10	42	38	70	54	188	72	74	158	270	306	200	103
11	41	47	68	54	150	72	72	168	273	288	192	108
12	41	46	67	54	128	72	72	188	273	288	190	103
13	40	45	66	54	130	68	72	192	279	294	190	101
14	39	45	64	55	125	67	74	172	267	309	185	97
15	38	45	64	65	120	65	74	180	261	327	172	92
16	38	45	62	102	112	65	74	178	258	351	160	92
17	38	45	62	324	106	65	70	170	255	351	162	86
18	41	45	62	654	103	64	68	160	362	340	158	84
19	38	46	62	638	103	62	68	158	390	372	158	84
20	41	48	54	558	97	60	70	152	393	372	165	84
21	39	70	64	414	95	60	68	148	407	324	165	82
22	40	150	64	337	92	68	67	155	428	294	170	80
23	46	300	80	285	90	70	67	170	449	273	152	80
24	44	700	88	252	92	67	67	190	386	264	142	80
25	41	222	140	225	90	65	68	219	666	258	142	80
26	39	148	198	185	90	68	68	267	470	249	142	80
27	38	122	252	170	92	64	70	246	390	249	148	74
28	38	106	158	160	92	64	72	258	354	255	148	76
29	38	99	61	155	------	64	72	273	340	255	142	74
30	38	88	57	150	------	65	76	258	344	255	140	76
31	38	------	57	140	------	65	------	234	------	252	155	------
TOTAL	1,411	2,845	2,633	5,572	3,102	2,158	2,092	5,355	9,585	9,562	5,600	2,966
MEAN	45.5	94.8	84.9	180	111	69.6	69.7	173	320	308	181	98.9
MAX	61	700	252	654	188	92	78	273	666	372	258	185
MIN	38	35	54	54	90	60	62	82	192	249	140	74
AC-FT	2,800	5,640	5,220	11,050	6,190	4,280	4,150	10,620	19,010	18,970	11,110	5,880

CAL YR 1970 TOTAL 37,174 MEAN 102 MAX 700 MIN 35 AC-FT 73,730
WTR YR 1971 TOTAL 52,881 MEAN 145 MAX 700 MIN 35 AC-FT 104,900

PEAK DISCHARGE (BASE, 470 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	-	4.05	750	6-26	0800	4.13	815
1-18	0700	3.85	690				

14076500 Deschutes River near Culver, Oreg.

LOCATION.--Lat 44°29'56", long 121°19'12", in NW¼SE¼ sec.29, T.12 S., R.12 E., Jefferson County, on right bank 2.5 miles downstream from Squaw Creek, 6.0 miles southwest of Culver, and at mile 120.6.

DRAINAGE AREA.--2,703 sq mi.

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980 ft above mean sea level (river-profile survey). July 14, 1952, to Sept. 30, 1961, at site 4.1 miles downstream at different datum.

AVERAGE DISCHARGE.--19 years, 881 cfs (638,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,490 cfs Jan. 28 (gage height, 5.99 ft); minimum, 485 cfs Aug. 16.
Period of record: Maximum discharge, 6,680 cfs Dec. 24, 1964 (gage height, 10.00 ft), from rating curve extended above 2,200 cfs on basis of slope-area measurement of peak flow; minimum, 418 cfs July 7, 8, 1964.

REMARKS.--Records excellent. Slight regulation by Crescent Lake and Crane Prairie and Wickiup Reservoirs (see elsewhere in this report). Many diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	507	938	1,360	1,070	1,600	1,120	1,290	505	609	734	513	537
2	511	979	1,270	1,030	1,510	1,130	1,280	506	576	718	531	524
3	510	982	1,220	971	1,470	1,210	1,290	510	538	708	522	537
4	509	986	1,140	987	1,450	1,160	1,280	530	526	688	509	520
5	508	1,000	1,090	1,030	1,430	1,170	1,290	503	537	687	504	509
6	508	1,010	1,110	1,080	1,410	1,190	1,250	500	556	696	502	513
7	509	1,000	1,140	1,120	1,380	1,180	1,260	498	554	688	507	505
8	512	1,010	1,180	1,120	1,360	1,010	1,270	500	559	661	539	509
9	511	1,040	1,190	1,020	1,340	922	1,270	498	594	667	567	507
10	513	1,060	1,180	964	1,430	927	1,000	503	583	692	505	501
11	514	1,060	1,180	956	1,550	888	1,070	509	587	657	498	503
12	512	1,080	1,120	999	1,460	944	781	511	590	618	494	503
13	510	1,080	1,090	1,040	1,490	1,100	655	518	608	636	494	506
14	510	1,080	1,050	1,040	1,530	1,110	631	521	662	632	489	504
15	510	1,090	1,080	1,090	1,390	978	613	507	596	667	488	506
16	510	1,090	1,090	1,270	1,280	947	600	497	568	706	488	505
17	510	1,060	1,070	1,660	1,250	970	540	498	627	741	496	512
18	511	1,040	1,030	1,960	1,230	952	526	500	633	726	496	511
19	511	1,030	985	1,960	1,200	1,130	522	497	822	686	491	512
20	511	982	1,030	1,820	1,310	1,190	523	501	856	786	492	514
21	512	938	902	1,520	1,300	1,180	524	506	855	760	490	515
22	514	817	786	1,620	1,140	1,190	520	503	874	692	491	529
23	520	862	824	1,690	1,090	1,150	518	498	960	640	494	561
24	518	1,500	926	1,640	1,110	1,210	518	493	905	607	498	564
25	516	1,200	976	1,640	1,090	1,250	518	500	1,090	572	498	572
26	512	879	1,000	1,920	1,180	1,300	516	517	1,270	568	496	583
27	550	810	1,070	1,980	1,230	1,340	527	587	897	560	494	590
28	814	1,030	1,110	1,900	1,210	1,350	518	630	782	551	494	627
29	959	1,240	1,060	1,750	------	1,330	514	699	742	549	495	655
30	943	1,270	1,050	1,680	------	1,280	506	702	694	526	508	688
31	937	------	1,080	1,620	------	1,290	------	623	------	519	505	------
TOTAL	17,502	31,143	33,389	43,147	37,410	35,398	24,120	16,370	21,210	20,278	15,588	16,089
MEAN	565	1,038	1,077	1,392	1,336	1,132	804	528	707	654	503	536
MAX	959	1,500	1,360	1,980	1,600	1,350	1,290	702	1,270	786	567	688
MIN	507	810	786	956	1,090	888	506	493	526	519	488	503
AC-FT	34,720	61,770	66,230	85,580	74,200	69,620	47,840	32,470	42,070	40,220	30,920	31,910

CAL YR 1970 TOTAL 282,947 MEAN 775 MAX 1,830 MIN 467 AC-FT 561,200
WTR YR 1971 TOTAL 311,344 MEAN 853 MAX 1,980 MIN 488 AC-FT 617,600

14078000 Beaver Creek near Paulina, Oreg.

LOCATION.--Lat 44°09'50", long 119°55'20", in NE¼ sec.26, T.16 S., R.23 E., Crook County, on right bank 0.7 mile downstream from Paulina Creek, 1.7 miles downstream from Wolf Creek, 2.7 miles northeast of Paulina, and at mile 10.0.

DRAINAGE AREA.--450 sq mi, approximately.

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1945 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 3,690 ft (by barometer). Oct. 1, 1942, to July 7, 1965, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--29 years, 88.1 cfs (63,830 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,430 cfs Jan. 18 (gage height, 9.18 ft); minimum, 0.50 cfs Aug. 10, 11.
Period of record: Maximum discharge, 12,800 cfs Dec. 22, 1964 (gage height, 14.20 ft, from floodmark, present datum), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; no flow Oct. 13-29, 1945.

REMARKS.--Records fair. No regulation. Diversions for irrigation above station. Two small ditches divert above station for irrigation below.

REVISIONS (WATER YEARS).--WSP 1348: Drainage area. WSP 1448: 1946, 1948, 1949-50(M), 1951-52.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	6.6	132	40	294	90	324	141	25	17	.70	1.0
2	.76	6.6	111	30	291	80	321	149	27	16	7.2	1.1
3	.79	6.6	82	25	205	110	334	170	18	16	.70	1.4
4	.79	6.6	68	30	200	120	348	183	10	15	.62	1.6
5	.79	7.4	72	35	161	100	386	161	6.0	14	.62	1.6
6	.79	7.4	215	40	127	89	468	134	3.3	15	.62	1.4
7	.79	8.0	372	45	122	105	496	113	1.6	14	.62	1.4
8	.79	8.0	252	70	127	96	408	143	1.3	14	.62	1.3
9	.79	9.5	218	150	131	101	351	157	1.3	14	.56	1.1
10	.76	8.7	145	300	208	100	330	129	1.8	14	.56	1.4
11	.76	38	124	200	321	111	309	104	3.3	14	.62	1.1
12	.76	69	70	100	324	147	270	67	2.3	13	1.6	1.0
13	.76	35	50	80	348	157	233	56	1.8	13	1.4	.90
14	.76	24	50	78	341	145	230	49	1.8	13	1.3	.56
15	.76	20	55	88	334	132	233	40	1.4	13	1.1	.62
16	2.1	17	50	273	285	113	225	33	1.4	13	1.0	.56
17	5.1	15	60	2,210	261	84	258	30	1.1	12	1.0	.62
18	5.1	15	100	3,400	235	89	255	27	1.4	12	1.0	.62
19	5.9	15	250	2,090	170	96	210	21	1.8	13	1.0	.62
20	5.9	14	200	1,640	160	114	203	18	1.8	14	1.0	.62
21	5.1	13	100	685	150	193	218	17	2.1	13	1.0	.70
22	5.1	12	70	492	150	321	203	12	2.1	3.8	.90	.70
23	8.0	24	55	424	160	680	185	8.2	1.6	.62	1.0	.70
24	8.0	660	45	341	160	615	173	6.6	1.3	.62	1.1	.70
25	6.6	529	45	297	150	588	161	2.8	1.3	.62	1.1	4.6
26	6.6	267	40	279	110	1,130	149	2.6	1.0	.62	1.0	6.6
27	5.9	178	45	273	120	640	143	2.8	1.3	.62	1.0	6.3
28	5.9	170	50	255	100	448	138	1.6	1.3	.62	1.0	6.9
29	5.9	145	45	238	------	428	140	1.3	9.7	.62	1.0	6.9
30	5.9	155	45	243	------	456	138	1.8	18	.62	1.0	6.9
31	5.9	------	45	255	------	369	------	8.6	------	.62	.90	------
TOTAL	104.61	2,498.4	3,261	14,706	5,745	8,047	7,840	1,990.3	153.1	301.38	34.84	61.52
MEAN	3.37	83.3	105	474	205	260	261	64.2	5.10	9.72	1.12	2.05
MAX	8.0	660	372	3,400	348	1,130	496	183	27	17	7.2	6.9
MIN	.76	6.6	40	25	100	80	138	1.3	1.0	.62	.56	.56
AC-FT	207	4,960	6,470	29,170	11,400	15,960	15,550	3,950	304	598	69	122

CAL YR 1970 TOTAL 44,301.30 MEAN 121 MAX 3,000 MIN .55 AC-FT 87,870
WTR YR 1971 TOTAL 44,743.15 MEAN 123 MAX 3,400 MIN .56 AC-FT 88,750

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1600	4.70	940	3-23	2130	4.49	874
1-18	0200	9.18	5,430	3-26	0230	5.22	1,350

NOTE.--No gage-height record, Dec. 12 to Jan. 13.

14079500 Crooked River near Post, Oreg.

LOCATION.--Lat 44°07'00", long 120°15'00", in NE¼ sec.7, T.17 S., R.21 E., Crook County, on left bank 0.3 mile downstream from North Fork, 12 miles southeast of Post, and at mile 113.7.

DRAINAGE AREA.--2,160 sq mi, approximately, of which 500 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1908 to May 1911, December 1939 to September 1960, July 1968 to current year. Records for June to August 1911, published in WSP 312, have been found unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 3,476.25 ft above mean sea level. Nov. 9, 1908, to Aug. 31, 1911, nonrecording gage at site 0.2 mile downstream at different datum. Dec. 30, 1939, to Sept. 30, 1960, water-stage recorder at site 0.7 mile downstream at different datum.

AVERAGE DISCHARGE.--23 years (1940-60, 1968-71), 335 cfs (242,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,500 cfs Jan. 18 (gage height, 9.61 ft); minimum, 2.9 cfs Aug. 13.

Period of record: Maximum discharge, 11,500 cfs Jan. 18, 1971 (gage height, 9.61 ft), from rating curve extended above 4,800 cfs on basis of slope-area measurement of peak flow; minimum, 2.7 cfs Aug. 7, 1970.

Flood of Dec. 23, 1964, reached a stage of 15.00 ft at nonequivalent site 23 miles downstream (discharge, 19,700 cfs).

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

REVISIONS.--See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	78	297	181	646	270	999	900	246	41	11	6.6
2	18	73	289	131	660	242	1,080	981	246	40	6.0	10
3	20	71	242	126	490	319	1,200	1,090	223	37	5.3	12
4	20	71	214	169	455	266	1,310	1,130	199	34	5.8	13
5	17	75	231	184	390	266	1,560	1,070	168	31	5.5	14
6	14	90	385	200	324	238	2,030	900	145	32	5.8	13
7	17	105	787	214	294	254	2,120	796	135	30	6.0	11
8	16	102	712	340	306	250	1,660	900	125	28	6.0	11
9	19	116	528	665	333	258	1,600	900	115	28	6.0	13
10	21	109	405	814	484	246	1,530	764	115	38	4.3	13
11	21	249	360	796	990	266	1,280	668	123	38	3.4	12
12	22	289	238	613	1,030	319	1,080	611	110	35	3.4	11
13	21	191	231	464	1,080	333	1,030	611	99	34	3.4	11
14	22	141	261	453	1,130	319	1,140	527	97	32	4.0	9.6
15	23	121	242	480	1,140	298	1,260	455	86	40	3.8	9.0
16	24	112	257	752	954	274	1,130	449	74	40	3.8	9.0
17	26	107	325	3,700	852	223	1,110	380	61	40	4.3	10
18	34	107	420	7,600	740	223	1,020	342	63	37	4.3	9.6
19	34	102	573	5,330	576	223	936	302	68	25	4.5	11
20	40	98	620	4,580	562	250	990	266	70	25	5.5	13
21	41	94	301	2,280	490	346	954	246	61	28	5.5	13
22	43	76	273	1,450	490	660	860	223	52	24	6.0	13
23	53	163	231	1,250	496	1,500	852	199	48	20	7.2	12
24	67	1,580	207	1,040	508	1,860	780	183	41	18	7.8	16
25	62	1,340	221	909	484	1,690	708	180	43	16	7.8	16
26	61	650	200	804	333	2,630	708	238	49	13	5.8	17
27	52	420	210	740	360	1,880	748	223	54	13	6.6	22
28	73	350	231	653	324	1,280	796	189	51	11	6.0	28
29	78	350	228	604	------	1,240	820	168	48	7.8	6.6	37
30	88	335	224	604	------	1,460	868	174	43	6.6	6.6	38
31	86	------	228	590	------	1,120	------	168	------	7.2	5.5	------
TOTAL	1,150	7,765	10,171	38,716	16,921	21,003	34,159	16,233	3,058	849.6	173.5	433.8
MEAN	37.1	259	328	1,249	604	678	1,139	524	102	27.4	5.60	14.5
MAX	88	1,580	787	7,600	1,140	2,630	2,120	1,130	246	41	11	38
MIN	14	71	200	126	294	223	708	168	41	6.6	3.4	6.6
AC-FT	2,280	15,400	20,170	76,790	33,560	41,660	67,750	32,200	6,070	1,690	344	860

CAL YR 1970 TOTAL 144,332.6 MEAN 395 MAX 9,190 MIN 3.1 AC-FT 286,300
WTR YR 1971 TOTAL 150,632.9 MEAN 413 MAX 7,600 MIN 3.4 AC-FT 298,800

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1430	6.59	2,190	3-26	0800	6.75	2,860
1-18	0130	9.61	11,500	4- 6	2200	6.49	2,380

14080400 Prineville Reservoir near Prineville, Oreg.

LOCATION.--Lat 44°06'50", long 120°46'50", in SW¼NW¼ sec.11, T.17 S., R.16 E., Crook County, at right end of Prineville Dam on Crooked River, 13.8 miles south of Prineville, and at mile 72.5.

DRAINAGE AREA.--2,700 sq mi approximately, of which 500 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Aug. 13, 1969, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 156,300 acre-ft May 5-7 (elevation, 3,235.95 ft); minimum, 79,480 acre-ft Dec. 5, (elevation, 3,204.50 ft).

Period of record: Maximum contents observed, 165,800 acre-ft Dec. 27, 1964 (elevation, 3,238.95 ft); minimum observed, 70,570 acre-ft Oct. 21, Nov. 1, 1968 (elevation, 3,199.65 ft).

REMARKS.--Reservoir is formed by earth-fill dam with ungated concrete spillway and concrete outlet tunnel controlled by two 4-ft by 6-ft regulating gates. Storage began in December 1960. Total capacity at elevation 3,234.80 ft (crest of spillway) is 154,700 acre-ft, of which 152,800 acre-ft is active storage above 3,114.00 ft (proposed minimum pool). Reservoir used for flood control, irrigation, and recreation. Figures given herein represent active storage.

COOPERATION.--Gage inspected and capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,218.21	108,400	-
Oct. 31	3,211.55	93,610	-14,790
Nov. 30	3,209.20	88,740	-4,870
Dec. 31	3,210.40	91,200	+2,460
CAL YR 1970	-	-	-6,660
Jan. 31	3,218.40	108,800	+17,600
Feb. 28	3,219.80	112,100	+3,300
Mar. 31	3,228.10	133,400	+21,300
Apr. 30	3,234.20	151,000	+17,600
May 31	3,234.75	152,700	+1,700
June 30	3,232.15	144,900	-7,800
July 31	3,227.35	131,400	-13,500
Aug. 31	3,221.15	115,400	-16,000
Sept.30	3,216.40	104,200	-11,200
WTR YR 1971	-	-	-4,200

14080500 Crooked River near Prineville, Oreg.

LOCATION.--Lat 44°06'50", long 120°47'40", in SW¼NE¼ sec.10, T.17 S., R.16 E., Crook County, on right bank 0.4 mile downstream from Prineville Dam, 13.6 miles south of Prineville, and at mile 72.1.

DRAINAGE AREA.--2,700 sq mi, approximately, of which 500 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1908 to September 1914, March 1941 to current year. Published as "near Prineville" 1908-12, as "at Hoffman's ranch, near Prineville" 1913-14, and as "above Hoffman Dam, near Prineville," March 1941 to September 1960. The estimate of monthly mean discharge for October 1908, published in WSP 370, has been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 3,070.85 ft above mean sea level (levels by Bureau of Reclamation). Prior to September 1914, nonrecording gage at several sites from 9 to 23 miles downstream at various datums. Mar. 26, 1941, to Apr. 23, 1961, water-stage recorder at site 5.5 miles downstream at different datum.

AVERAGE DISCHARGE.--24 years (1909-14, 1941-60), 378 cfs (273,700 acre-ft per year); 11 years (1961-71), 284 cfs (205,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,200 cfs Jan. 20-22 (gage height, 7.70 ft); minimum, 2.1 cfs Dec. 24.
Period of record: Maximum discharge, 8,410 cfs Mar. 26, 1952 (gage height, 8.2 ft, from floodmark, site and datum then in use); no flow Aug. 13-21, 1959, Jan. 3-5, 1961.

REMARKS.--Records excellent. Flow completely regulated since December 1960 by Prineville Reservoir (see station 14080400). Diversions for irrigation above station. Discharge not adjusted for storage or release from Prineville Reservoir as evaporation from reservoir at times exceeds natural flow.

REVISIONS (WATER YEARS).--WSP 1448: 1909-13, 1914(M), drainage area (at sites prior to Apr. 24, 1961). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	174	1,440	80	1,080	159	1,090	300	256	247	253	218
2	141	130	1,430	80	1,080	158	781	199	233	267	251	216
3	141	130	1,400	80	936	159	466	288	231	267	253	216
4	141	130	1,120	87	819	159	390	467	231	265	253	215
5	141	131	700	98	586	159	489	677	231	265	253	214
6	141	94	49	98	372	159	961	980	231	265	253	214
7	139	56	23	98	411	159	1,570	973	233	265	253	214
8	139	56	7.4	98	504	159	1,820	966	231	256	253	212
9	139	69	7.4	98	504	159	1,820	964	231	237	251	212
10	139	83	7.3	98	504	159	1,820	956	231	237	251	212
11	139	83	7.4	98	535	160	1,810	942	231	237	251	207
12	139	83	7.3	99	606	160	1,720	925	231	237	251	195
13	139	113	7.0	99	1,020	160	1,310	745	231	237	251	195
14	139	182	7.1	99	1,330	160	856	427	231	235	251	195
15	139	182	7.2	132	1,240	160	721	431	231	235	251	194
16	139	182	7.1	497	748	185	755	434	231	235	251	193
17	139	182	7.1	778	245	285	992	434	231	235	251	193
18	139	182	7.1	1,410	346	378	1,020	434	229	235	251	193
19	139	182	7.2	2,580	452	409	1,110	390	229	235	251	193
20	139	182	7.1	3,170	619	409	1,070	309	231	235	251	193
21	139	182	7.1	3,180	619	410	1,040	309	231	235	251	193
22	139	182	7.3	3,170	508	329	915	306	231	237	249	191
23	139	182	7.3	3,150	430	263	687	289	231	237	249	191
24	139	135	38	3,130	272	264	573	237	253	237	249	196
25	139	439	79	2,270	157	420	575	240	270	237	249	207
26	139	1,210	79	1,520	157	967	504	240	265	247	247	207
27	139	1,370	79	1,350	157	1,510	320	251	227	253	249	207
28	139	1,450	79	1,350	158	1,540	171	276	227	253	249	207
29	158	1,450	79	1,350	------	1,220	352	272	226	253	249	207
30	189	1,430	79	1,340	------	1,010	352	272	226	253	242	192
31	189	------	76	1,270	------	1,090	------	272	------	253	220	------
TOTAL	4,440	10,636	6,865.4	32,957	16,395	13,078	28,060	15,205	7,032	7,622	7,737	6,092
MEAN	143	355	221	1,063	586	422	935	490	234	246	250	203
MAX	189	1,450	1,440	3,180	1,330	1,540	1,820	980	270	267	253	218
MIN	139	56	7.0	80	157	158	171	199	226	235	220	191
AC-FT	8,810	21,100	13,620	65,370	32,520	25,940	55,660	30,160	13,950	15,120	15,350	12,080

CAL YR 1970 TOTAL 151,804.4 MEAN 416 MAX 2,200 MIN 7.0 AC-FT 301,100
WTR YR 1971 TOTAL 156,119.4 MEAN 428 MAX 3,180 MIN 7.0 AC-FT 309,700

14087300 Crooked River near Terrebonne, Oreg.

LOCATION.--Lat 44°21'30", long 121°07'04", in SE¼NW¼ sec.13, T.14 S., R.13 E., Deschutes County, on left bank 200 ft downstream from North Unit Main Canal bridge over Crooked River Gorge, 3.2 miles east of Terrebonne and at mile 27.0. Prior to July 29, 1970 at site 4.2 miles downstream.

DRAINAGE AREA.--4,240 sq mi approximately, of which 500 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1967 to current year. See also NOTE below.

GAGE.--Water-stage recorder. Datum of gage is 2,745.39 ft above mean sea level (Bureau of Reclamation bench mark). Oct. 1, 1967, to May 12, 1968, at site 500 ft upstream at datum 6.33 ft higher. May 13, 1968, to July 28, 1970, at site 4.2 miles downstream at altitude 2,610 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 4,060 cfs Jan. 20 (gage height, 10.97 ft); minimum, 73 cfs July 23, 24, 27.
Period of record: Maximum discharge, 4,060 cfs Jan. 20, 1971 (gage height, 10.97 ft); minimum, 10 cfs Aug. 8, 1970.
Flood in December 1964 reached a stage of 11.89 ft, from floodmark, at site 500 ft upstream (discharge not determined).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Prineville Reservoir (see station 14080400) and Ochoco Reservoir (capacity, 47,500 acre-ft). Many diversions for irrigation above station, no water was diverted at pumping station, 500 ft above gage site, during year.

COOPERATION.--Figures of diversion by pumping furnished by North Unit Irrigation District.

NOTE.--Seasonal records for water years 1961-67 are available and on file in the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	263	1,420	152	1,300	300	1,400	360	358	171	147	229
2	245	242	1,440	150	1,200	300	1,400	320	288	178	117	233
3	251	207	1,420	140	1,100	318	1,000	240	257	186	109	233
4	251	207	1,390	150	1,000	308	850	260	255	188	107	226
5	243	212	1,100	174	900	305	750	380	244	180	108	235
6	260	208	700	188	750	300	900	600	226	180	104	244
7	259	174	320	184	550	300	1,400	800	211	171	107	244
8	262	131	260	190	600	298	1,800	850	167	172	110	246
9	263	129	220	186	650	315	1,900	850	137	154	109	233
10	265	137	190	184	650	340	2,000	850	133	165	104	220
11	252	169	170	182	600	345	2,000	800	127	176	117	207
12	247	170	150	178	650	360	2,000	800	126	157	130	186
13	241	157	140	142	800	323	1,800	750	130	147	137	176
14	240	178	130	192	1,100	300	1,400	500	129	130	137	161
15	242	227	140	202	1,200	308	1,100	320	109	113	135	163
16	241	229	115	260	1,100	325	900	320	112	119	138	174
17	248	228	103	1,060	600	363	1,100	340	113	98	135	188
18	251	228	96	1,750	400	488	1,200	380	120	87	182	202
19	255	228	92	2,280	600	545	1,200	360	135	90	137	188
20	255	228	95	3,230	700	536	1,300	320	137	84	135	198
21	256	226	111	3,300	750	503	1,200	240	127	82	137	229
22	270	233	148	3,200	700	497	1,100	240	104	88	150	244
23	291	240	123	3,000	650	413	1,000	250	97	80	165	233
24	287	267	90	2,800	600	400	850	220	104	76	163	235
25	281	255	87	2,300	450	400	750	148	167	77	172	242
26	278	762	137	1,700	300	650	700	224	186	79	174	251
27	257	1,280	180	1,500	300	1,200	550	178	182	76	192	262
28	229	1,390	186	1,400	300	1,800	400	192	176	81	222	298
29	218	1,420	176	1,400	------	1,700	220	194	182	80	209	330
30	240	1,420	168	1,400	------	1,500	380	196	184	97	209	350
31	264	------	170	1,400	------	1,400	------	237	------	105	220	------
TOTAL	7,921	11,445	11,267	34,574	20,500	17,440	34,550	12,719	5,023	3,867	4,518	6,860
MEAN	256	382	363	1,115	732	563	1,152	410	167	125	146	229
MAX	291	1,420	1,440	3,300	1,300	1,800	2,000	850	358	188	222	350
MIN	218	129	87	140	300	298	220	148	97	76	104	161
AC-FT	15,710	22,700	22,350	68,580	40,660	34,590	68,530	25,230	9,960	7,670	8,960	13,610

CAL YR 1970 TOTAL 148,054 MEAN 406 MAX 2,600 MIN 14 AC-FT 293,700
WTR YR 1971 TOTAL 170,684 MEAN 468 MAX 3,300 MIN 76 AC-FT 338,600

NOTE.--No gage-height record Jan. 21 to Mar. 2, Apr. 17 to May 24.

14087400 Crooked River below Opal Springs, near Culver, Oreg.

LOCATION.--Lat 44°29'33", long 121°17'50", in NW¼NE¼ sec.33, T.12 S., R.12 E., Jefferson County, on right bank 0.2 mile downstream from Opal Springs, 4.8 miles southwest of Culver, and at mile 6.7.

DRAINAGE AREA.--4,300 sq mi, approximately, of which 500 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,953.60 ft above mean sea level (Portland General Electric Co. bench mark).

AVERAGE DISCHARGE.--10 years, 1,525 cfs (1,105,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,700 cfs Jan. 20 (gage height, 7.28 ft); minimum, 1,220 cfs June 18.
Period of record: Maximum discharge, 6,660 cfs Dec. 24, 1964 (gage height, 9.36 ft); minimum, 968 cfs Sept. 27, 1968.

REMARKS.--Records excellent. Flow regulated since December 1960 by Prineville Reservoir (see station 14080400) and Ochoco Reservoir (capacity, 47,500 acre-ft). Many diversions for irrigation above station. Practically all of the summer flow comes from Opal Springs and other springs within 15 miles above station. Simultaneous records (1961-63) at former gaging station 5.6 miles downstream indicated over 15 percent increase to summer flow from springs below this station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,510	1,490	2,770	1,320	2,760	1,520	2,790	1,600	1,580	1,400	1,350	1,440
2	1,480	1,490	2,790	1,300	2,600	1,530	2,790	1,550	1,550	1,390	1,350	1,450
3	1,480	1,430	2,780	1,290	2,570	1,540	2,390	1,460	1,490	1,410	1,330	1,450
4	1,490	1,430	2,740	1,290	2,350	1,530	2,140	1,480	1,480	1,410	1,320	1,450
5	1,470	1,430	2,430	1,310	2,260	1,530	2,050	1,610	1,470	1,400	1,320	1,450
6	1,490	1,430	2,040	1,350	1,970	1,520	2,110	1,850	1,450	1,400	1,320	1,460
7	1,490	1,410	1,440	1,350	1,810	1,530	2,680	2,120	1,440	1,390	1,320	1,470
8	1,490	1,340	1,400	1,350	1,850	1,520	3,210	2,140	1,400	1,400	1,330	1,460
9	1,500	1,330	1,350	1,350	1,910	1,530	3,350	2,140	1,360	1,380	1,320	1,470
10	1,500	1,330	1,320	1,350	1,900	1,570	3,400	2,130	1,350	1,380	1,320	1,440
11	1,490	1,370	1,310	1,350	1,870	1,570	3,450	2,100	1,340	1,400	1,320	1,430
12	1,480	1,380	1,300	1,340	1,910	1,590	3,470	2,070	1,330	1,390	1,350	1,420
13	1,470	1,360	1,290	1,310	1,970	1,560	3,360	2,050	1,340	1,370	1,350	1,400
14	1,470	1,360	1,290	1,330	2,520	1,530	2,810	1,830	1,340	1,360	1,360	1,380
15	1,470	1,440	1,310	1,360	2,660	1,520	2,460	1,550	1,320	1,330	1,360	1,380
16	1,470	1,440	1,290	1,380	2,600	1,550	2,210	1,550	1,320	1,330	1,370	1,390
17	1,480	1,440	1,270	2,090	2,000	1,570	2,360	1,570	1,320	1,310	1,350	1,400
18	1,480	1,440	1,260	3,160	1,640	1,690	2,520	1,610	1,330	1,290	1,390	1,420
19	1,490	1,440	1,250	3,440	1,740	1,780	2,570	1,590	1,350	1,280	1,360	1,410
20	1,490	1,440	1,250	4,280	1,950	1,790	2,630	1,560	1,360	1,290	1,350	1,420
21	1,490	1,440	1,250	4,660	2,070	1,760	2,590	1,470	1,350	1,270	1,340	1,440
22	1,500	1,440	1,300	4,590	2,040	1,740	2,540	1,460	1,330	1,280	1,350	1,470
23	1,530	1,470	1,290	4,560	1,890	1,680	2,350	1,470	1,300	1,280	1,370	1,460
24	1,530	1,480	1,260	4,510	1,840	1,660	2,130	1,450	1,310	1,270	1,380	1,460
25	1,520	1,500	1,240	4,480	1,660	1,650	2,040	1,380	1,340	1,270	1,390	1,470
26	1,510	1,760	1,270	3,510	1,530	1,870	2,040	1,410	1,410	1,270	1,390	1,480
27	1,490	2,590	1,320	3,060	1,520	2,640	1,790	1,420	1,410	1,270	1,400	1,490
28	1,460	2,740	1,350	2,830	1,530	3,170	1,710	1,400	1,400	1,280	1,430	1,520
29	1,440	2,790	1,340	2,890	------	3,120	1,440	1,410	1,400	1,270	1,430	1,550
30	1,450	2,790	1,330	2,900	------	2,820	1,620	1,420	1,400	1,280	1,430	1,570
31	1,490	------	1,330	2,890	------	2,710	------	1,440	------	1,320	1,440	------
TOTAL	46,100	48,220	48,160	75,180	56,920	56,290	75,000	51,290	41,570	41,370	42,190	43,500
MEAN	1,487	1,607	1,554	2,425	2,033	1,816	2,500	1,655	1,386	1,335	1,361	1,450
MAX	1,530	2,790	2,790	4,660	2,760	3,170	3,470	2,140	1,580	1,410	1,440	1,570
MIN	1,440	1,330	1,240	1,290	1,520	1,520	1,440	1,380	1,300	1,270	1,320	1,380
AC-FT	91,440	95,640	95,530	149,100	112,900	111,700	148,800	101,700	82,450	82,060	83,680	86,280

CAL YR 1970 TOTAL 593,060 MEAN 1,625 MAX 3,950 MIN 1,160 AC-FT 1,176,000
WTR YR 1971 TOTAL 625,790 MEAN 1,714 MAX 4,660 MIN 1,240 AC-FT 1,241,000

14088000 Lake Creek near Sisters, Oreg.

LOCATION.--Lat 44°25'35", long 121°43'30", in NE¼SW¼ sec.24, T.13 S., R.8 E., Deschutes County, on left bank 300 ft downstream from Suttle Lake and 13 miles northwest of Sisters.

DRAINAGE AREA.--22.2 sq mi.

PERIOD OF RECORD.--June to November 1911, March to September 1912, May to October 1913, April 1915 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 3,431.68 ft above mean sea level. Prior to Apr. 1, 1916, nonrecording gage at two sites 400 ft upstream at different datums. Apr. 1, 1916, to Oct. 12, 1928, nonrecording gage or water-stage recorder at site 640 ft downstream at different datum. Oct. 13, 1928, to Aug. 13, 1967, water-stage recorder at site 600 ft downstream at datum 1.61 ft lower.

AVERAGE DISCHARGE.--56 years (1915-71), 52.1 cfs (37,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 285 cfs Jan. 21 (gage height, 3.92 ft); minimum, 26 cfs Oct. 5.

Period of record: Maximum discharge not determined, Dec. 23, 1964; maximum daily discharge, 500 cfs Dec. 23, 1964; minimum discharge, 1.0 cfs Nov. 4, 5, 1940; minimum daily, 8 cfs Nov. 5, 1940, Oct. 6, 1942.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1124: 1943, 1947. WSP 1218: Drainage area. WSP 1448: 1916(M), 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	33	77	56	84	74	63	66	138	69	42	49
2	29	31	74	54	79	72	62	68	128	66	39	47
3	30	30	76	54	76	76	61	71	118	63	39	40
4	29	31	68	54	74	76	61	76	109	60	39	38
5	29	34	62	54	72	69	61	81	106	58	39	38
6	32	36	57	54	71	66	62	88	103	53	39	38
7	30	34	60	50	70	65	62	96	104	54	38	36
8	30	36	59	56	68	62	65	97	104	56	38	36
9	30	35	61	61	67	60	71	97	104	54	38	36
10	30	33	61	63	70	66	72	103	103	52	40	36
11	30	39	61	67	73	67	75	112	100	52	41	34
12	28	42	57	68	75	69	73	122	98	52	42	34
13	28	37	55	70	79	68	71	127	96	51	38	34
14	28	36	57	76	83	68	70	132	96	50	35	33
15	28	38	63	91	94	65	69	140	96	49	36	33
16	29	40	65	89	83	61	69	147	96	49	35	32
17	30	38	60	114	87	58	70	141	94	47	36	32
18	30	40	57	134	88	57	68	130	94	47	36	32
19	30	40	57	195	87	56	65	125	88	47	37	32
20	33	40	58	249	80	54	62	116	88	46	34	31
21	36	37	57	265	76	54	56	109	89	44	36	31
22	37	39	54	239	75	60	59	109	89	44	37	31
23	49	48	53	192	72	60	62	109	84	44	36	32
24	44	69	52	176	79	61	61	110	83	43	36	32
25	36	69	52	151	87	65	62	117	93	44	37	32
26	33	92	52	136	84	74	61	137	88	43	36	32
27	32	104	51	122	84	73	62	143	93	43	37	32
28	34	91	58	111	82	71	61	151	92	42	36	32
29	33	82	68	102	------	65	61	152	84	40	37	36
30	32	78	67	93	------	69	64	154	76	40	36	34
31	36	------	65	87	------	68	------	145	------	42	37	------
TOTAL	993	1,432	1,874	3,383	2,199	2,029	1,941	3,571	2,934	1,544	1,162	1,045
MEAN	32.0	47.7	60.5	109	78.5	65.5	64.7	115	97.8	49.8	37.5	34.8
MAX	49	104	77	265	94	76	75	154	138	69	42	49
MIN	28	30	51	50	67	54	56	66	76	40	34	31
AC-FT	1,970	2,840	3,720	6,710	4,360	4,020	3,850	7,080	5,820	3,060	2,300	2,070

CAL YR 1970 TOTAL 19,457 MEAN 53.3 MAX 285 MIN 28 AC-FT 38,590
WTR YR 1971 TOTAL 24,107 MEAN 66.0 MAX 265 MIN 28 AC-FT 47,820

14091500 Metolius River near Grandview, Oreg.

LOCATION.--Lat 44°37'33", long 121°28'55", in SE¼SW¼ sec.12, T.11 S., R.10 E., Jefferson County, Deschutes National Forest, on right bank 1.0 mile upstream from maximum controlled pool of Lake Billy Chinook, 15.0 miles northwest of Culver, and at mile 13.6.

DRAINAGE AREA.--316 sq mi, at cableway 1.0 mile downstream, where all discharge measurements are made. Hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--April 1910 to February 1912 (gage heights and discharge measurements only), March 1912 to December 1913, October 1921 to current year. Published as "at Hubbard's ranch, near Sisters" 1910, and as "at Hubbard's ranch, near Grandview" 1910-13.

GAGE.--Water-stage recorder. Datum of gage is 1,974.36 ft above mean sea level (levels by Portland General Electric Co.). Prior to Dec. 31, 1913, nonrecording gage at site 2.3 miles upstream at different datum. Oct. 1, 1921, to May 3, 1949, nonrecording gage and May 4, 1949, to June 18, 1963, water-stage recorder at site 2.7 miles downstream at datum 64 ft lower.

AVERAGE DISCHARGE.--51 years (1912-13, 1921-71), 1,484 cfs (1,075,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,220 cfs Jan. 19 (gage height, 3.55 ft); minimum, 1,260 cfs Jan. 2.
Period of record: Maximum discharge, 7,530 cfs Dec. 24, 1964 (gage height, 6.81 ft); minimum, 1,080 cfs Feb. 17, 1932, Oct. 2-31, Nov. 6, 7, 10-14, 1942.

REMARKS.--Records excellent.. No regulation. Many small diversions for irrigation above station. Stream is spring fed. Records herein are for measuring site. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1448: 1913.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FER	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	1,290	1,420	1,340	1,730	1,580	1,710	1,630	1,870	1,800	1,720	1,720
2	1,290	1,280	1,410	1,300	1,710	1,590	1,700	1,650	1,820	1,810	1,710	1,720
3	1,290	1,280	1,420	1,310	1,680	1,610	1,690	1,700	1,790	1,790	1,680	1,570
4	1,290	1,290	1,390	1,300	1,690	1,600	1,690	1,760	1,780	1,770	1,670	1,530
5	1,290	1,310	1,420	1,300	1,660	1,570	1,690	1,770	1,790	1,780	1,670	1,520
6	1,290	1,310	1,470	1,320	1,640	1,550	1,710	1,740	1,820	1,750	1,670	1,520
7	1,290	1,300	1,490	1,320	1,610	1,560	1,720	1,730	1,850	1,740	1,660	1,500
8	1,290	1,320	1,460	1,350	1,600	1,550	1,710	1,770	1,830	1,730	1,650	1,490
9	1,300	1,340	1,420	1,440	1,590	1,540	1,750	1,790	1,830	1,760	1,640	1,490
10	1,300	1,310	1,410	1,450	1,750	1,580	1,750	1,780	1,830	1,760	1,640	1,490
11	1,300	1,370	1,410	1,420	1,770	1,640	1,730	1,790	1,840	1,720	1,630	1,500
12	1,290	1,400	1,380	1,400	1,730	1,700	1,720	1,850	1,820	1,720	1,620	1,490
13	1,280	1,330	1,370	1,380	1,730	1,660	1,700	1,890	1,830	1,720	1,620	1,480
14	1,280	1,310	1,380	1,400	1,750	1,650	1,690	1,850	1,840	1,740	1,600	1,470
15	1,280	1,300	1,390	1,580	1,830	1,620	1,700	1,840	1,820	1,760	1,580	1,460
16	1,280	1,380	1,420	1,850	1,780	1,590	1,690	1,860	1,810	1,780	1,580	1,460
17	1,280	1,340	1,380	2,590	1,750	1,570	1,690	1,810	1,800	1,800	1,570	1,450
18	1,280	1,340	1,350	2,920	1,730	1,570	1,670	1,780	1,820	1,800	1,570	1,450
19	1,280	1,320	1,340	2,930	1,720	1,560	1,650	1,770	1,880	1,790	1,570	1,450
20	1,290	1,310	1,360	2,840	1,690	1,560	1,650	1,750	1,880	1,800	1,570	1,450
21	1,310	1,300	1,350	2,490	1,670	1,570	1,640	1,720	1,900	1,810	1,570	1,440
22	1,310	1,290	1,340	2,300	1,650	1,620	1,630	1,720	1,930	1,780	1,600	1,440
23	1,400	1,340	1,330	2,190	1,640	1,700	1,620	1,740	1,970	1,750	1,560	1,440
24	1,360	2,130	1,320	2,050	1,680	1,750	1,610	1,780	1,910	1,740	1,550	1,450
25	1,310	1,830	1,320	1,970	1,670	1,760	1,610	1,830	2,070	1,720	1,550	1,450
26	1,300	1,580	1,310	1,890	1,640	1,790	1,620	1,950	2,000	1,710	1,550	1,450
27	1,290	1,560	1,310	1,840	1,630	1,770	1,620	1,950	1,890	1,710	1,550	1,440
28	1,280	1,500	1,330	1,790	1,610	1,740	1,620	1,970	1,830	1,720	1,550	1,440
29	1,290	1,460	1,340	1,760	------	1,740	1,610	2,010	1,790	1,710	1,540	1,450
30	1,290	1,450	1,360	1,740	------	1,770	1,620	1,950	1,780	1,710	1,530	1,440
31	1,290	------	1,390	1,750	------	1,740	------	1,900	------	1,710	1,540	------
TOTAL	40,190	41,870	42,790	55,510	47,330	50,800	50,210	56,030	55,620	54,390	49,710	44,650
MEAN	1,296	1,396	1,380	1,791	1,690	1,639	1,674	1,807	1,854	1,755	1,604	1,488
MAX	1,400	2,130	1,490	2,930	1,830	1,790	1,750	2,010	2,070	1,810	1,720	1,720
MIN	1,280	1,280	1,310	1,300	1,590	1,540	1,610	1,630	1,780	1,710	1,530	1,440
AC-FT	79,720	83,050	84,870	110,100	93,880	100,800	99,590	111,100	110,300	107,900	98,600	88,560

CAL YR 1970 TOTAL 540,570 MEAN 1,481 MAX 2,840 MIN 1,270 AC-FT 1,072,000
WTR YR 1971 TOTAL 589,100 MEAN 1,614 MAX 2,930 MIN 1,280 AC-FT 1,168,000

14092100 Lake Billy Chinook near Metolius, Oreg.

LOCATION.--Lat 44°36'14", long 121°16'40", in SW¼NE¼ sec.22, T.11 S., R.12 E., Jefferson County, Warm Springs Indian Reservation, near left end of Round Butte Dam on Deschutes River, 5.0 miles west of Metolius, and at mile 110.6.

DRAINAGE AREA.--7,490 sq mi, approximately.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland General Electric Co.).

EXTREMES.--Current year: Maximum contents observed, 534,400 acre-ft June 30 (elevation, 1,944.92 ft); minimum contents observed, 493,000 acre-ft Dec. 26 (elevation, 1,934.15 ft).

Period of record: Maximum contents, 536,200 acre-ft June 10, 1969, June 9, 1970; maximum elevation, 1,945.37 ft June 9, 1970; minimum observed since first filling, 467,300 acre-ft Jan. 29, 1969 (elevation, 1,927.33 ft).

REMARKS.--Reservoir is formed by rockfill dam completed in June 1964 by Portland General Electric Co; storage began Jan. 2, 1964. Total capacity is 534,700 acre-ft and usable capacity is 273,900 acre-ft between elevations 1,860.0 ft (proposed lower limit of operation) and 1,945.0 ft (proposed upper limit of operation). Reservoir used for power generation under FPC license 2030. Figures given herein represent total contents.

COOPERATION.--Gage readings and capacity table furnished by Portland General Electric Co.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,941.48	520,900	-
Oct. 31	1,944.52	532,800	+11,900
Nov. 30	1,942.79	526,000	-6,800
Dec. 31	1,937.17	504,500	-21,500
CAL YR 1970	-	-	-20,400
Jan. 31	1,935.77	499,200	-5,300
Feb. 28	1,936.41	501,600	+2,400
Mar. 31	1,943.70	529,600	+28,000
Apr. 30	1,942.44	524,700	-4,900
May 31	1,944.92	534,400	+9,700
June 30	1,944.06	531,000	-3,400
July 31	1,944.01	530,800	-200
Aug. 31	1,944.29	531,900	+1,100
Sept.30	1,944.45	532,600	+700
WTR YR 1971	-	-	+11,700

14092500 Deschutes River near Madras, Oreg.

LOCATION.--Lat 44°43'34", long 121°14'45", in SE¼SW¼ sec.1, T.10 S., R.12 E., Jefferson County, on right bank 400 ft downstream from reregulating dam, 2.7 miles downstream from Pelton Dam, 8.5 miles northwest of Madras, and at mile 100.1.

DRAINAGE AREA.--7,820 sq mi, approximately.

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,390.25 ft above mean sea level (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Nov. 23, 1957.

AVERAGE DISCHARGE.--48 years, 4,413 cfs (3,197,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,100 cfs Jan. 24 (gage height, 4.86 ft); minimum, 3,040 cfs Oct. 8.
Period of record: Maximum discharge, 15,800 cfs Dec. 28, 1964 (gage height, 6.29 ft); maximum gage height, 6.89 ft Jan. 1, 1943, site and datum then in use; minimum discharge, 1,200 cfs Dec. 13, 1957.

REMARKS.--Records excellent. Diurnal fluctuation caused by Lake Simtustus and reregulating reservoir since 1957 (combined capacity for normal operation, 6,500 acre-ft). Some winter and spring runoff stored in Ochoco Reservoir (capacity, 47,500 acre-ft, in Crescent Lake, Crane Prairie and Wickiup Reservoirs (combined capacity, 354,600 acre-ft) and since 1960, in Prineville Reservoir (capacity, 152,800 acre-ft) and since 1964, in Lake Billy Chinook (capacity, 534,700 acre-ft). Large diversions in upper basin for irrigation.

REVISIONS.--WSP 1398: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,650	4,000	5,730	3,250	6,690	4,970	6,910	4,130	5,160	4,380	3,900	4,030
2	3,490	4,200	5,990	3,210	6,020	4,180	6,870	4,100	5,130	4,230	3,930	4,650
3	3,250	4,510	6,260	3,180	5,990	4,350	6,870	4,100	5,160	4,200	3,880	4,650
4	3,250	4,670	6,290	3,580	5,990	4,330	6,910	4,130	4,810	4,300	3,880	4,300
5	3,210	4,700	6,260	4,250	5,990	4,100	6,380	4,100	4,650	4,280	3,900	4,130
6	3,210	4,730	6,080	4,590	6,020	3,650	6,020	4,130	4,650	4,280	4,000	4,130
7	3,140	4,730	5,670	4,620	5,990	3,620	5,990	4,130	4,510	4,230	4,030	4,030
8	3,100	4,730	5,700	4,560	5,580	3,650	6,050	4,130	4,330	4,180	4,000	3,900
9	3,140	4,590	5,410	4,150	5,130	3,620	6,410	4,130	4,330	4,300	4,000	3,900
10	3,440	4,480	4,970	3,880	4,750	3,650	6,590	4,410	4,330	4,480	4,000	3,900
11	3,830	4,650	4,700	3,810	4,380	3,650	6,560	4,560	4,300	4,460	4,000	3,860
12	4,230	4,730	4,830	3,860	4,410	3,650	6,560	4,700	4,380	4,540	3,980	3,880
13	4,180	4,410	5,550	4,150	4,350	3,650	6,470	4,920	4,350	4,350	3,950	3,880
14	4,180	4,000	6,170	5,020	4,380	3,670	6,350	4,890	4,230	4,180	3,980	3,880
15	4,150	4,250	6,590	5,410	4,380	4,230	6,350	4,920	4,100	4,200	4,000	3,860
16	4,100	4,730	6,560	5,440	4,890	4,780	5,960	4,920	4,100	4,230	4,000	3,880
17	3,900	4,810	6,020	5,670	5,700	4,920	5,440	4,860	4,080	4,230	4,000	3,900
18	3,980	5,020	5,470	8,130	6,200	4,890	5,440	4,750	4,100	4,330	4,030	3,860
19	3,980	5,160	5,410	9,700	6,720	4,700	4,970	4,700	4,130	4,250	4,130	3,880
20	3,980	5,130	5,700	9,880	6,020	4,350	4,180	4,510	4,130	4,230	4,130	3,880
21	3,950	5,160	5,330	9,800	5,990	4,410	3,880	4,180	4,130	4,230	4,100	3,830
22	3,950	5,130	4,590	9,800	6,020	4,830	4,050	4,130	4,300	4,230	4,100	3,880
23	3,980	5,190	4,130	9,840	5,990	5,160	4,590	4,130	4,380	4,250	4,100	3,860
24	3,950	5,160	4,380	9,920	5,530	5,190	4,650	4,000	4,380	4,280	4,100	3,900
25	3,950	5,130	3,620	9,840	5,110	5,130	4,590	3,760	4,480	4,280	4,100	3,830
26	3,980	5,160	3,230	9,300	5,130	5,110	4,330	3,620	4,670	4,300	4,080	3,950
27	3,980	5,160	3,250	8,780	5,220	5,130	4,130	3,550	5,270	4,280	3,930	4,130
28	3,980	5,190	3,210	8,810	5,130	5,730	4,100	4,200	5,360	4,250	3,880	4,130
29	4,000	5,190	3,250	8,270	------	6,910	4,130	4,330	5,130	4,280	3,900	4,130
30	3,980	5,360	3,230	7,230	------	6,910	4,080	4,410	4,730	4,080	3,880	4,080
31	3,980	------	3,180	6,870	------	6,970	------	4,590	------	3,930	3,900	------
TOTAL	117,070	144,060	156,760	198,800	153,700	144,090	165,810	134,120	135,790	132,250	123,790	120,100
MEAN	3,776	4,802	5,057	6,413	5,489	4,648	5,527	4,326	4,526	4,266	3,993	4,003
MAX	4,230	5,360	6,590	9,920	6,720	6,970	6,910	4,920	5,360	4,540	4,130	4,650
MIN	3,100	4,000	3,180	3,180	4,350	3,620	3,880	3,550	4,080	3,930	3,880	3,830
AC-FT	232,200	285,700	310,900	394,300	304,900	285,800	328,900	266,000	269,300	262,300	245,500	238,200

CAL YR 1970 TOTAL 1,658,260 MEAN 4,543 MAX 10,200 MIN 2,970 AC-FT 3,289,000
WTR YR 1971 TOTAL 1,726,340 MEAN 4,730 MAX 9,920 MIN 3,100 AC-FT 3,424,000

14097200 White River near Government Camp, Oreg.

LOCATION.--Lat 45°10'40", long 121°34'30", in NE¼SW¼ sec.32, T.4 S., R.10 E., Wasco County, Mount Hood National Forest, on left bank at Faith Spring, 1.4 miles above Klip Creek, and at mile 33.3.

DRAINAGE AREA.--40.7 sq mi.

PERIOD OF RECORD.--July 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,740 ft from topographic map.

EXTREMES.-- Current year: Maximum discharge, 1,430 cfs Jan. 19 (gage height, 4.76 ft); minimum, 47 cfs Oct. 1, 2.
Period of record: Maximum discharge, 2,040 cfs Jan. 23, 1970 (gage height, 5.24 ft); minimum, 44 cfs Sept. 30, 1970.

REMARKS.--Records good except those for October through January, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	77	135	110	442	149	134	262	358	190	104	110
2	52	75	135	105	402	148	135	347	325	186	100	109
3	55	77	133	105	357	146	134	511	316	178	96	93
4	59	75	133	100	325	139	137	650	317	179	94	80
5	62	77	135	95	286	131	146	564	332	178	94	77
6	65	78	138	95	258	127	163	464	358	174	93	76
7	67	78	145	110	237	127	173	511	385	164	92	74
8	67	78	140	149	215	122	175	579	376	160	92	73
9	67	77	140	251	219	119	200	577	360	158	91	73
10	57	80	138	271	451	126	199	531	362	157	88	73
11	57	88	140	196	414	131	190	575	354	151	84	72
12	55	77	138	162	378	136	177	692	351	145	81	71
13	54	78	135	151	415	129	173	695	362	145	80	69
14	52	78	135	148	438	123	179	561	360	145	80	67
15	52	60	130	176	475	117	192	490	333	146	77	67
16	52	86	125	274	391	113	184	439	310	147	78	65
17	54	64	125	439	344	110	177	358	289	144	78	61
18	60	78	125	761	304	108	169	323	297	142	77	58
19	66	82	120	1,100	272	107	167	336	304	141	75	57
20	71	69	120	838	242	106	172	315	309	137	75	58
21	65	69	115	572	222	105	166	307	325	133	77	59
22	62	71	115	465	207	115	162	348	354	127	78	59
23	67	92	110	417	193	129	160	419	359	121	77	59
24	73	550	110	372	201	148	156	487	311	118	72	60
25	77	370	110	362	189	140	165	536	333	115	70	64
26	80	276	110	372	176	139	198	593	280	112	69	70
27	80	170	110	315	174	135	215	608	249	110	70	70
28	78	148	110	285	159	129	217	653	225	109	68	72
29	77	140	115	264	------	134	221	649	206	109	70	81
30	80	138	115	368	------	145	231	508	195	108	71	84
31	78	------	115	452	------	139	------	418	------	102	79	------
TOTAL	1,994	3,556	3,900	9,880	8,386	3,972	5,267	15,306	9,595	4,431	2,530	2,161
MEAN	64.3	119	126	319	300	128	176	494	320	143	81.6	72.0
MAX	80	550	145	1,100	475	149	231	695	385	190	104	110
MIN	52	60	110	95	159	105	134	262	195	102	68	57
CFSM	1.58	2.92	3.10	7.84	7.37	3.15	4.32	12.1	7.86	3.51	2.00	1.77
IN.	1.82	3.25	3.56	9.03	7.66	3.63	4.81	13.99	8.77	4.05	2.31	1.98
AC-FT	3,960	7,050	7,740	19,600	16,630	7,880	10,450	30,360	19,030	8,790	5,020	4,290

CAL YR 1970 TOTAL 56,671.6 MEAN 155 MAX 1,470 MIN 4.8 CFSM 3.81 IN 51.80 AC-FT 112,400
WTR YR 1971 TOTAL 70,978.0 MEAN 194 MAX 1,100 MIN 52 CFSM 4.77 IN 64.87 AC-FT 140,800

NOTE.--Shifting control, Oct. 1 to Nov. 28, Jan. 20 to Sept. 30.

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1200	4.22	644	5-13	0030	4.32	816
1-19	1430	4.76	1,430				

14097300 Clear Lake near Government Camp, Oreg.

LOCATION.--Lat 45°10'35", long 121°41'40", in NE¼SW¼ sec.32, T.4 S., R.9 E., Wasco County, Mount Hood National Forest, in control works shaft on Wasco dam, 9.4 miles southeast of Government Camp, 14.6 miles northwest of Warm Springs, and at mile 12.1.

DRAINAGE AREA.--8.31 sq mi.

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 11,420 acre-ft June 30 (elevation, 3,511.43 ft); minimum observed, 3,860 acre-ft Oct. 28 (elevation, 3,495.25 ft).

Period of record: Maximum contents observed, 11,420 acre-ft June 30, 1971 (elevation, 3,511.43 ft); minimum observed, 1,190 acre-ft July 29, 1968 (elevation, 3,488.0 ft).

REMARKS.--The dam is a zoned earthfilled structure built by the U.S. Bureau of Reclamation. Usable storage began Dec. 1, 1959. Capacity, 13,040 acre-ft at elevation 3,514.4 ft. Dead storage below elevation 3,480.0 ft in old natural Clear Lake is unknown. Inactive storage between elevations 3,480.0 ft and 3,488.0 ft is 1,190 acre-ft. Active storage is 11,850 acre-ft between elevations 3,488.0 ft and 3,514.4 ft.

COOPERATION.--Some elevations furnished by Juniper Flat Irrigation District and capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	[a]3,495.2	3,840	-
Oct. 28	3,495.25	3,860	-
Nov. 4	3,494.95	3,740	-
Dec. 22	3,496.2	4,250	-
CAL YR 1970	-	-	-
Jan. 27	3,498.5	5,210	-
Feb. 23	3,500.5	6,080	-
Mar. 24	3,502.0	6,740	-
Apr. 22	3,502.75	7,090	-
May 31	[a]3,508.38	9,820	-
June 30	3,511.43	11,420	+1,600
July 31	3,509.30	10,300	-1,120
Aug. 31	3,505.80	8,540	-1,760
Sept.30	3,504.4	7,870	-670
WTR YR 1971			+4,030

a Interpolated.

14097400 Clear Creek below Clear Lake, near Government Camp, Oreg.

LOCATION.--Lat 45°10'35", long 121°41'35", in NW¼SE¼ sec.32, T.4 S., R.9 E., Wasco County, Mount Hood National Forest, on left bank 250 ft downstream from Wasco Dam, 9.5 miles southeast of Government Camp, and at mile 12.05.

DRAINAGE AREA.--8.32 sq mi.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,477.64 ft above mean sea level (levels by U.S. Bureau of Reclamation).

EXTREMES.--Current year: Maximum discharge, 26 cfs July 17 (gage height, 0.83 ft); maximum gage height, 0.91 ft Aug. 14; minimum discharge, 0.78 cfs Oct. 25 to Nov. 14.

Period of record: Maximum discharge, 38 cfs July 26, 1969 (gage height, 0.98 ft); minimum, 0.78 cfs Sept. 6-13, 21-30, Oct. 1, to Nov. 7, 1968, Oct. 25 to Nov. 14, 1970.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated since May 1968 by Clear Lake (see sta 14097300). No diversions.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.78	1.0	1.0	1.2	1.2	1.3	1.2	1.8	2.0	8.0	16
2	1.2	.78	1.0	1.0	1.2	1.2	1.3	1.2	2.0	1.8	1.8	11
3	1.2	.78	1.0	1.0	1.2	1.2	1.3	1.3	2.0	2.0	5.7	11
4	1.2	.78	1.0	1.0	1.3	1.2	1.3	1.5	2.0	2.0	14	11
5	1.2	.78	1.0	1.0	1.2	1.2	1.3	1.5	2.0	2.0	14	11
6	1.2	.78	1.0	1.0	1.3	1.2	1.3	1.5	2.0	6.2	14	11
7	1.2	.78	1.0	1.0	1.3	1.2	1.3	1.5	2.0	12	14	11
8	1.2	.78	1.0	1.0	1.3	1.2	1.3	1.5	2.0	12	14	11
9	1.2	.78	1.0	1.0	1.2	1.2	1.3	1.5	2.2	12	14	11
10	1.2	.78	1.0	1.0	1.3	1.3	1.3	1.5	2.2	12	17	5.5
11	1.2	.81	1.0	1.0	1.3	1.3	1.3	1.5	2.2	12	23	1.7
12	1.2	.81	1.0	1.0	1.3	1.3	1.3	1.5	2.2	12	23	1.7
13	1.0	.78	1.0	1.0	1.3	1.3	1.3	1.7	2.2	12	22	1.7
14	1.0	.79	1.0	1.0	1.3	1.3	1.3	1.7	2.2	12	22	1.8
15	1.0	.91	1.0	1.0	1.3	1.3	1.3	1.7	2.2	15	22	1.8
16	1.0	.91	1.0	1.0	1.3	1.3	1.3	1.8	2.0	21	22	1.8
17	1.0	.91	1.0	1.0	1.3	1.3	1.3	1.7	2.0	25	21	1.7
18	1.0	.91	1.0	1.0	1.3	1.3	1.3	1.7	2.0	25	22	1.7
19	1.0	.91	1.0	1.2	1.3	1.3	1.3	1.8	2.0	25	21	1.7
20	.91	.91	1.0	1.0	1.3	1.3	1.3	1.8	2.0	25	22	1.7
21	.91	.91	1.0	1.0	1.3	1.3	1.3	1.8	2.0	25	22	1.7
22	.91	.95	1.0	1.2	1.3	1.3	1.3	1.8	2.0	25	22	1.7
23	.91	1.0	1.0	1.2	1.3	1.3	1.3	1.8	2.0	25	19	1.7
24	.91	1.0	1.0	1.2	1.3	1.3	1.3	1.8	2.0	25	17	1.7
25	.78	1.0	1.0	1.2	1.3	1.3	1.3	1.8	2.0	26	17	1.7
26	.78	1.0	1.0	1.2	1.3	1.3	1.3	1.8	2.0	26	17	1.7
27	.78	1.0	1.0	1.2	1.3	1.3	1.2	1.8	2.0	21	17	1.7
28	.78	1.0	1.0	1.2	1.2	1.3	1.2	2.0	2.0	17	16	1.7
29	.78	1.0	1.0	1.2	------	1.3	1.2	2.0	2.0	17	16	1.7
30	.78	1.0	1.0	1.2	------	1.3	1.2	2.0	1.9	17	18	1.7
31	.78	------	1.0	1.2	------	1.3	------	2.0	------	17	22	------
TOTAL	31.41	26.31	31.0	33.2	35.8	39.4	38.6	51.7	61.1	489.0	539.5	143.8
MEAN	1.01	.88	1.00	1.07	1.28	1.27	1.29	1.67	2.04	15.8	17.4	4.79
MAX	1.2	1.0	1.0	1.2	1.3	1.3	1.3	2.0	2.2	26	23	16
MIN	.78	.78	1.0	1.0	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.7
AC-FT	62	52	61	66	71	78	77	103	121	970	1,070	285

CAL YR 1970 TOTAL 2,570.42 MEAN 7.04 MAX 32 MIN .78 AC-FT 5,100
WTR YR 1971 TOTAL 1,520.82 MEAN 4.17 MAX 26 MIN .78 AC-FT 3,020

NOTE.--No gage-height record Nov. 23 to Jan. 12.

14098100 Clear Creek ditch near Government Camp, Oreg.

LOCATION.--Lat 45°08'45", long 121°37'50", in SW¼SE¼ sec.11, T.5 S., R.9 E., Wasco County, Mount Hood National Forest, on left bank 32 ft downstream from U.S. Highway 26, 1.4 miles downstream from diversion dam on Clear Creek, and 12 miles southeast of Government Camp.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,244 ft above mean sea level (levels by U.S. Bureau of Public Roads).

EXTREMES.--Period of record: Maximum daily discharge, 62 cfs May 26, 1971; no flow Nov. 22-24, 1969.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Canal diverts from Clear Creek in NW¼SE¼ sec.10, T.5 S., R.9 E., for irrigation of lands in the Juniper Flats area to the east. Flow is also supplemented by diversion from Frog Creek in NE¼NE¼ sec.34, T.[illegible] S., R.9 E.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	10	10	7.0	14	9.2	10	33	55	42	39	55
2	13	10	9.0	7.0	14	9.7	10	35	54	41	28	40
3	13	10	9.0	7.0	14	10	10	38	53	40	28	37
4	13	10	9.0	7.0	13	10	10	41	53	39	38	36
5	14	11	10	7.0	13	11	10	43	52	38	39	36
6	15	10	10	7.0	13	11	11	42	52	38	39	35
7	14	10	10	7.0	13	11	11	43	51	47	39	35
8	13	11	10	9.0	13	11	11	45	50	46	38	35
9	13	11	10	11	12	10	11	45	50	46	38	34
10	13	10	9.0	14	14	10	12	45	49	46	38	32
11	12	11	9.0	16	14	10	12	46	49	45	44	23
12	12	11	9.0	13	14	11	11	47	48	44	44	22
13	12	10	8.0	12	14	10	11	48	48	43	44	22
14	12	9.0	8.0	11	14	10	12	47	47	42	47	22
15	11	9.0	8.0	10	15	10	12	46	46	44	52	22
16	11	10	8.0	9.0	15	9.7	12	44	46	49	52	21
17	11	10	8.0	9.0	14	9.7	12	42	45	55	52	21
18	12	11	7.2	9.0	14	9.5	12	41	45	54	51	21
19	12	11	7.0	11	14	9.5	12	41	44	54	51	21
20	12	11	7.0	13	13	9.5	15	41	43	54	51	21
21	13	10	7.0	23	13	9.2	25	49	43	53	51	21
22	13	10	7.0	17	13	9.5	25	59	42	53	51	21
23	18	12	7.0	18	13	9.7	25	60	41	53	49	21
24	15	15	7.0	17	13	10	25	60	41	53	43	21
25	12	14	7.0	17	14	9.7	27	61	41	53	43	21
26	11	12	7.0	16	13	10	28	62	39	52	42	21
27	11	12	7.0	15	10	9.7	30	61	38	49	42	21
28	11	11	7.0	15	10	9.7	30	61	40	43	42	21
29	10	11	7.0	14	------	10	31	60	44	42	42	22
30	10	10	7.0	14	------	10	32	58	43	42	43	21
31	10	------	7.0	14	------	10	------	56	------	42	51	------
TOTAL	385	323.0	252.2	376.0	373	309.3	505	1,500	1,392	1,442	1,351	802
MEAN	12.4	10.8	8.14	12.1	13.3	9.98	16.8	48.4	46.4	46.5	43.6	26.7
MAX	18	15	10	23	15	11	32	62	55	55	52	55
MIN	10	9.0	7.0	7.0	10	9.2	10	33	38	38	28	21
AC-FT	764	641	500	746	740	614	1,000	2,980	2,760	2,860	2,680	1,590

CAL YR 1970 TOTAL 8,263.4 MEAN 22.6 MAX 46 MIN 7.0 AC-FT 16,390
WTR YR 1971 TOTAL 9,010.5 MEAN 24.7 MAX 62 MIN 7.0 AC-FT 17,870

NOTE.--No gage-height record, Nov. 11 to Jan. 19.

14098600 Clear Creek near Pine Grove, Oreg.

LOCATION.--Lat 45°08'50", long 121°34'30", in SW¼ sec.8, T.5 S., R.10 E., Wasco County, Mount Hood National Forest, on left bank 400 ft downstream from Frog Creek and 9.5 miles northwest of Pine Grove.

DRAINAGE AREA.--38.3 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 239 cfs Jan. 19 (gage height, 4.22 ft, from floodmark); minimum, 17 cfs Oct. 1, 2, 4. Period of record: Maximum discharge, 382 cfs Jan. 23, 1970 (gage height, 5.01 ft); minimum, 14 cfs Sept. 6, 7, 21-29, 1967, Sept. 28, 1968.

REMARKS.--Records excellent, except those for periods of no gage-height record, which are fair. Some regulation since May 1968 by Clear Lake (see station 14097300). Large diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	20	32	27	109	85	73	115	118	30	25	31
2	18	19	31	27	109	84	73	131	107	30	25	28
3	18	19	30	26	105	82	73	156	99	29	24	25
4	18	19	32	25	107	80	75	191	93	29	26	24
5	18	21	33	24	98	76	79	198	88	29	27	23
6	20	20	32	24	93	74	86	189	84	29	27	23
7	18	20	35	24	89	72	92	191	80	29	27	22
8	18	22	34	55	85	70	93	201	76	29	27	22
9	18	22	31	100	83	68	104	203	73	29	26	22
10	18	21	30	80	120	70	106	199	70	29	26	22
11	18	29	32	60	125	74	105	202	67	28	30	22
12	18	36	30	50	118	76	100	211	63	28	31	21
13	19	28	30	48	121	76	100	216	62	29	31	21
14	19	25	30	45	132	72	103	206	59	28	30	21
15	19	25	30	60	150	70	111	200	56	28	25	21
16	19	30	31	90	142	66	109	192	53	27	25	21
17	19	26	29	130	136	64	107	175	51	28	25	21
18	20	32	28	170	130	62	103	166	51	28	25	21
19	20	32	28	220	121	60	102	163	48	29	25	21
20	21	30	28	200	112	60	104	158	46	29	25	21
21	22	28	28	175	107	60	90	141	44	28	25	21
22	22	26	27	159	103	62	88	134	43	28	25	21
23	28	35	27	146	97	70	88	139	42	28	24	21
24	27	100	26	137	100	76	85	142	41	28	24	21
25	26	62	26	130	96	78	85	146	43	28	24	21
26	23	46	26	129	96	78	95	160	40	28	23	21
27	21	42	26	118	93	76	100	153	39	27	23	21
28	21	37	26	109	88	74	101	152	38	27	23	21
29	21	34	26	102	------	74	105	148	32	26	23	22
30	20	34	27	102	------	80	109	136	31	25	23	21
31	20	------	27	108	------	76	------	125	------	25	25	------
TOTAL	625	940	908	2,900	3,065	2,245	2,844	5,239	1,837	872	794	664
MEAN	20.2	31.3	29.3	93.5	109	72.4	94.8	169	61.2	28.1	25.6	22.1
MAX	28	100	35	220	150	85	111	216	118	30	31	31
MIN	18	19	26	24	83	60	73	115	31	25	23	21
AC-FT	1,240	1,860	1,800	5,750	6,080	4,450	5,640	10,390	3,640	1,730	1,570	1,320

CAL YR 1970 TOTAL 17,910 MEAN 49.1 MAX 358 MIN 18 AC-FT 35,520
WTR YR 1971 TOTAL 22,933 MEAN 62.8 MAX 220 MIN 18 AC-FT 45,490

NOTE.--No gage-height record, Dec. 19 to Jan. 21, Mar. 1-31.

14101500 White River below Tygh Valley, Oreg.

LOCATION.--Lat 45°14'30", long 121°05'38", in NE¼NE¼ sec.7, T.4 S., R.14 E., Wasco County, on left bank 200 ft downstream from former Pacific Power & Light Co. powerplant at White River Falls, 4 miles east of town of Tygh Valley, and at mile 2.0.

DRAINAGE AREA.--368 sq mi.

PERIOD OF RECORD.--October 1917 to current year.

GAGE.--Water-stage recorder. Datum of gage is 870.15 ft above mean sea level (levels by Pacific Power & Light Co.). Prior to July 28, 1931, at site 750 ft downstream at different datum. July 28, 1931, to Sept. 30, 1954, at site 700 ft downstream at different datums.

AVERAGE DISCHARGE.--54 years, 427 cfs (309,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,390 cfs Jan. 18 (gage height, 6.18 ft); minimum, 92 cfs Oct. 1, 2.
Period of record: Maximum discharge, 13,300 cfs Jan. 6, 1923 (gage height, about 13.3 ft, site and datum then in use), from rating curve extended above 5,000 cfs; minimum, 7.5 cfs Aug. 31, 1961; minimum daily, 71 cfs Aug. 31, 1941.

REMARKS.--Records good. No regulation. Diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1448: 1920, 1923, 1927-28, drainage area. WSP 1935: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	147	324	352	1,060	540	606	699	987	445	193	262
2	95	147	304	251	1,030	532	576	824	895	430	187	272
3	95	147	293	251	952	563	565	1,040	851	408	179	218
4	95	147	290	218	900	565	550	1,310	832	396	176	182
5	96	149	286	220	817	530	560	1,320	807	404	176	167
6	103	154	324	234	737	498	588	1,180	827	392	176	167
7	103	157	364	275	682	487	642	1,140	855	376	173	160
8	99	157	392	304	633	500	654	1,220	817	356	170	149
9	99	165	372	465	595	486	684	1,250	798	344	167	142
10	103	173	344	690	814	485	708	1,190	786	352	167	137
11	109	179	348	606	1,060	584	690	1,200	774	352	160	139
12	109	218	324	490	1,010	676	648	1,360	768	340	157	135
13	109	245	312	425	1,030	762	624	1,450	762	316	152	133
14	107	241	304	400	1,080	708	626	1,330	762	300	149	133
15	109	228	312	350	1,180	666	670	1,220	720	300	142	130
16	107	221	289	1,000	1,160	594	658	1,140	672	297	137	126
17	107	228	293	2,320	1,070	565	650	995	642	283	135	121
18	107	228	268	3,000	976	525	613	898	642	283	137	115
19	109	241	265	2,420	906	505	579	874	660	279	137	113
20	109	251	279	2,300	815	485	602	838	666	279	137	111
21	117	248	265	1,680	756	475	576	771	660	279	135	113
22	123	238	255	1,350	715	475	558	792	702	269	144	115
23	133	251	248	1,180	683	525	544	894	738	251	144	113
24	154	720	244	1,080	665	570	520	1,010	696	231	133	109
25	167	852	244	1,020	681	606	505	1,090	696	225	128	111
26	165	550	251	1,030	633	690	560	1,220	636	218	133	115
27	162	475	258	947	615	762	613	1,220	570	209	133	113
28	154	420	260	856	590	678	634	1,260	530	212	135	113
29	152	376	260	786	------	642	650	1,320	490	199	130	119
30	149	340	260	801	------	642	663	1,190	460	193	133	115
31	149	------	344	1,010	------	642	------	1,050	------	193	145	------
TOTAL	3,689	8,293	9,176	28,311	23,845	17,963	18,316	34,295	21,701	9,411	4,700	4,248
MEAN	119	276	296	913	852	579	611	1,106	723	304	152	142
MAX	167	852	392	3,000	1,180	762	708	1,450	987	445	193	272
MIN	94	147	244	218	590	475	505	699	460	193	128	109
AC-FT	7,320	16,450	18,200	56,150	47,300	35,630	36,330	68,020	43,040	18,670	9,320	8,430

CAL YR 1970 TOTAL 147,413 MEAN 404 MAX 4,250 MIN 94 AC-FT 292,400
WTR YR 1971 TOTAL 183,948 MEAN 504 MAX 3,000 MIN 94 AC-FT 364,900

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-26	1800	3.91	1,290	5-13	0600	4.36	1,510
1-18	0800	6.18	3,390	5-29	0430	4.18	1,380
2-15	1300	3.81	1,210				

14103000 Deschutes River at Moody, near Biggs, Oreg.

LOCATION.--Lat 45°37'20", long 120°54'05", in SE¼ sec.26, T.2 N., R.15 E., Sherman County, on right bank at Moody, 4.0 miles southwest of Biggs, and at mile 1.4.

DRAINAGE AREA.--10,500 sq mi, approximately.

PERIOD OF RECORD.--October 1897 to December 1899 (published as "near Moro"), July 1906 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 167.54 ft above mean sea level. Oct. 19, 1897, to Dec. 31, 1899, nonrecording gage at site 10 miles upstream at different datum. July 22, 1906, to July 18, 1930, nonrecording gage at site 300 ft downstream at datum 0.50 ft lower.

AVERAGE DISCHARGE.--67 years, 5,794 cfs (4,198,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,500 cfs Jan. 18 (gage height, 5.88 ft); minimum, 3,270 cfs Oct. 9.
Period of record: Maximum discharge, 75,500 cfs Dec. 22, 1964 (gage height, 11.80 ft), from rating curve extended above 47,000 cfs; minimum, 2,400 cfs Dec. 5, 1957.

REMARKS.--Records excellent. Some fluctuation caused by regulation at Lake Simtustus since 1957. Some winter and spring runoff stored in Ochoco Reservoir (capacity, 46,420 acre-ft, revised), in Crescent Lake, Crane Prairie and Wickiup Reservoirs (combined capacity, 323,390 acre-ft) and since 1960, in Prineville Reservoir (see station 14080400), and since 1964 in Lake Billy Chinook (see station 14092100). Large diversions in upper river basin for irrigation. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 754: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,030	4,330	6,280	3,880	8,990	6,490	8,810	5,710	7,170	5,810	4,630	4,600
2	4,030	4,330	6,450	3,740	8,520	6,080	8,700	5,810	7,350	5,480	4,570	5,150
3	3,680	4,660	6,930	3,560	8,090	5,510	8,590	6,010	7,170	5,350	4,570	5,510
4	3,500	5,000	7,030	3,590	7,940	5,710	8,560	6,450	7,140	5,350	4,510	5,350
5	3,470	5,060	7,000	4,060	7,840	5,640	8,590	6,730	6,590	5,380	4,510	4,780
6	3,450	5,120	7,100	4,940	7,700	5,190	7,800	6,660	6,590	5,350	4,540	4,750
7	3,470	5,190	6,900	5,220	7,630	4,810	7,840	6,560	6,620	5,280	4,630	4,690
8	3,390	5,150	6,730	5,280	7,490	4,870	7,910	6,520	6,420	5,190	4,630	4,510
9	3,360	5,190	6,690	5,410	6,790	4,900	7,980	6,620	6,220	5,150	4,600	4,450
10	3,420	5,000	6,050	5,280	6,760	4,900	8,560	6,620	6,250	5,410	4,600	4,420
11	3,820	5,000	5,740	5,220	6,590	5,350	8,560	7,000	6,180	5,480	4,570	4,420
12	4,270	5,310	5,440	4,900	6,490	5,540	8,480	7,170	6,150	5,440	4,570	4,390
13	4,540	5,380	5,710	4,780	6,420	5,740	8,410	7,700	6,150	5,480	4,540	4,390
14	4,540	4,750	6,590	5,250	6,490	5,510	8,160	7,730	6,150	5,190	4,540	4,390
15	4,540	4,480	7,140	6,790	6,620	5,510	8,160	7,520	5,880	5,090	4,510	4,330
16	4,510	4,940	7,450	9,690	6,730	6,050	8,120	7,420	5,810	5,120	4,540	4,360
17	4,390	5,280	7,350	13,400	7,240	6,350	7,490	7,240	5,710	5,060	4,540	4,330
18	4,270	5,310	6,490	15,900	7,980	6,320	7,170	7,000	5,640	5,120	4,540	4,390
19	4,300	5,710	5,880	15,900	8,340	6,250	7,100	6,760	5,710	5,190	4,600	4,330
20	4,360	5,770	6,180	16,500	8,270	5,880	6.350	6,690	5,740	5,090	4,720	4,360
21	4,360	5,710	6,420	14,700	7,700	5,670	5,540	6,320	5,740	5,090	4,690	4,360
22	4,360	5,640	5,740	13,500	7,630	5,740	5,380	5,940	5,740	5,060	4,660	4,330
23	4,390	5,640	4,970	13,000	7,590	6,560	5,740	6,010	6,010	5,030	4,690	4,360
24	4,480	6,110	4,870	12,600	7,520	6,860	6,110	6,180	6,050	5,030	4,690	4,360
25	4,450	7,450	4,660	12,400	6,900	7,030	6,050	6,150	6,010	5,060	4,690	4,390
26	4,420	6,860	3,940	12,100	6,660	7,170	6,080	6,180	6,280	5,060	4,660	4,330
27	4,390	6,350	3,650	11,200	6,590	7,630	5,670	6,280	6,420	5,030	4,600	4,540
28	4,360	6,250	3,680	10,700	6,620	7,310	5,580	6,350	6,830	4,970	4,480	4,630
29	4,360	6,080	3,710	10,700	------	8,340	5,640	7,100	6,690	5,000	4,450	4,630
30	4,360	6,010	3,760	9,690	------	8,810	5,670	7,070	6,220	4,970	4,420	4,630
31	4,300	------	3,940	8,990	------	8,810	------	6,860	------	4,690	4,450	------
TOTAL	127,570	163,060	180,470	272,870	206,130	192,530	218,800	206,360	188,630	161,000	141,940	136,460
MEAN	4,115	5,435	5,822	8,802	7,362	6,211	7,293	6,657	6,288	5,194	4,579	4,549
MAX	4,540	7,450	7,450	16,500	8,990	8,810	8,810	7,730	7,350	5,810	4,720	5,510
MIN	3,360	4,330	3,650	3,560	6,420	4,810	5,380	5,710	5,640	4,690	4,420	4,330
AC-FT	253,000	323,400	358,000	541,200	408,900	381,900	434,000	409,300	374,100	319,300	281,500	270,700

CAL YR 1970 TOTAL 2,061,160 MEAN 5,647 MAX 15,500 MIN 3,360 AC-FT 4,088,000
WTR YR 1971 TOTAL 2,195,820 MEAN 6,016 MAX 16,500 MIN 3,360 AC-FT 4,355,000

14105700 Columbia River at The Dalles, Oreg.

LOCATION.--Lat 45°36'27", long 121°10'20", in SW¼SW¼ sec.34, T.2 N., R.13 E., Wasco County, Corps of Engineers land, on left bank 0.3 mile downstream from Mill Creek, 2.6 miles downstream from The Dalles Dam, and at mile 188.9.

DRAINAGE AREA.--237,000 sq mi, approximately.

PERIOD OF RECORD.--October 1857 to September 1877 (annual maximum only, at Lower Cascades Landing, published in WSP 1318), June 1878 to current year. Published as "near The Dalles" 1936-56.

GAGE.--Acoustic velocity meter (AVM) with water-stage and velocity-index recorder. Datum of gage is at mean sea level. See WSP 1738 for history of changes prior to Mar. 16, 1957. Mar. 16, 1957, to Sept. 30, 1968, water-stage recorder at site 0.4 mile upstream at same datum.

AVERAGE DISCHARGE.--93 years, 194,300 cfs (140,800,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 557,000 cfs May 13; maximum gage height, 86.30 ft May 14, minimum daily discharge, 72,400 cfs Oct. 10.
1858-1970: Maximum discharge, 1,240,000 cfs June 6, 1894 (gage height, 106.5 ft).
1878-1971: Minimum discharge, 12,100 cfs Apr. 16, 1968 (recorded by AVM due to closure of John Day Dam).

REMARKS.--Records excellent. Considerable regulation by many large reservoirs. Diurnal fluctuations caused by powerplant and gates at The Dalles Dam. Many diversions for irrigation above station. Records of daily water temperatures and chemical analysis for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 534: 1920(m). WSP 1094: 1894. WSP 1248: 1866, 1888, 1899, 1909. WSP 1518: 1876(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114,000	87,900	157,000	108,000	156,000	238,000	236,000	290,000	517,000	404,000	191,000	136,000
2	117,000	122,000	139,000	121,000	177,000	220,000	246,000	321,000	512,000	400,000	188,000	107,000
3	88,200	114,000	136,000	122,000	173,000	191,000	232,000	386,000	507,000	378,000	194,000	98,800
4	85,600	109,000	122,000	121,000	207,000	191,000	227,000	438,000	500,000	376,000	199,000	133,000
5	119,000	125,000	112,000	141,000	205,000	209,000	211,000	470,000	487,000	366,000	197,000	111,000
6	127,000	138,000	132,000	136,000	200,000	239,000	236,000	517,000	491,000	350,000	207,000	103,000
7	125,000	110,000	141,000	134,000	188,000	197,000	252,000	516,000	498,000	333,000	195,000	117,000
8	124,000	95,500	128,000	124,000	140,000	189,000	268,000	532,000	503,000	321,000	192,000	127,000
9	124,000	123,000	130,000	109,000	140,000	211,000	276,000	537,000	512,000	308,000	195,000	107,000
10	72,400	133,000	138,000	117,000	177,000	207,000	278,000	538,000	500,000	292,000	195,000	117,000
11	90,400	108,000	132,000	127,000	193,000	216,000	284,000	549,000	510,000	292,000	209,000	87,800
12	102,000	119,000	134,000	144,000	191,000	224,000	281,000	554,000	512,000	289,000	199,000	83,600
13	102,000	117,000	117,000	169,000	190,000	236,000	282,000	557,000	513,000	289,000	194,000	90,800
14	112,000	101,000	142,000	182,000	178,000	247,000	271,000	556,000	512,000	283,000	169,000	118,000
15	114,000	89,600	147,000	163,000	182,000	220,000	276,000	552,000	510,000	273,000	149,000	116,000
16	127,000	134,000	143,000	110,000	191,000	202,000	282,000	541,000	512,000	255,000	184,000	105,000
17	129,000	121,000	106,000	137,000	220,000	230,000	281,000	526,000	513,000	255,000	161,000	131,000
18	86,900	133,000	118,000	225,000	210,000	239,000	290,000	504,000	511,000	251,000	159,000	103,000
19	129,000	136,000	133,000	191,000	214,000	219,000	276,000	488,000	514,000	252,000	128,000	101,000
20	143,000	134,000	132,000	190,000	207,000	166,000	287,000	477,000	504,000	252,000	180,000	117,000
21	134,000	119,000	123,000	193,000	211,000	154,000	287,000	473,000	473,000	249,000	167,000	101,000
22	132,000	103,000	141,000	201,000	214,000	181,000	296,000	449,000	452,000	256,000	90,100	100,000
23	112,000	117,000	132,000	198,000	215,000	220,000	274,000	434,000	451,000	256,000	107,000	114,000
24	93,400	126,000	136,000	198,000	210,000	222,000	256,000	428,000	466,000	256,000	96,700	107,000
25	79,500	131,000	98,600	177,000	214,000	242,000	270,000	438,000	466,000	255,000	108,000	103,000
26	114,000	134,000	97,200	157,000	246,000	258,000	201,000	463,000	465,000	251,000	135,000	104,000
27	163,000	135,000	103,000	164,000	201,000	252,000	180,000	489,000	468,000	248,000	128,000	116,000
28	150,000	117,000	119,000	179,000	197,000	223,000	186,000	509,000	470,000	235,000	116,000	103,000
29	116,000	95,300	134,000	183,000	-------	198,000	197,000	527,000	455,000	206,000	100,000	98,000
30	112,000	136,000	131,000	189,000	-------	218,000	201,000	521,000	420,000	202,000	135,000	87,500
31	84,200	-------	119,000	191,000	-------	240,000	-------	517,000	-------	198,000	134,000	-------
TOTAL	3,521.6M	3,563.3M	3,972.8M	4,901.0M	5,447.0M	6,699.0M	7,620.0M	15,097M	14,724M	8,831.0M	5,001.8M	3,243.5M
MEAN	113,600	118,800	128,200	158,100	194,500	216,100	254,000	487,000	490,800	284,900	161,300	108,100
MAX	163,000	138,000	157,000	225,000	246,000	258,000	296,000	557,000	517,000	404,000	209,000	136,000
MIN	72,400	87,900	97,200	108,000	140,000	154,000	180,000	290,000	420,000	198,000	90,100	83,600
AC-FT	6,985M	7,068M	7,880M	9,721M	10,800M	13,290M	15,110M	29,940M	29,210M	17,520M	9,921M	6,433M

CAL YR 1970 TOTAL 60,629,900 MEAN 166,100 MAX 425,000 MIN 72,100 AC-FT 120,300,000
WTR YR 1971 TOTAL 82,622,000 MEAN 226,400 MAX 557,000 MIN 72,400 AC-FT 163,900,000

14105850 South Fork Mill Creek near The Dalles, Oreg.

LOCATION.--Lat 45°32'15", long 121°19'00", in NE¼SE¼ sec.28, T.1 N., R.12 E., Wasco County, on right bank 0.2 mile upstream from Wicks Reservoir, 7.8 miles southwest of The Dalles, and at mile 1.1.

DRAINAGE AREA.--28.0 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 914.52 ft above mean sea level (levels by city of The Dalles).

AVERAGE DISCHARGE.--9 years (1963-71) 15.3 cfs (7.42 inches per year, 11,080 acre-ft per year), adjusted for diversion and pumpage.

EXTREMES.--Current year: Maximum discharge, 174 cfs Jan. 17 (gage height, 2.84 ft); minimum, 3.2 cfs Nov. 22.
Period of record: Maximum discharge, 1,220 cfs Dec. 22, 1964 (gage height, 5.22 ft), from slope-area measurement of peak flow; minimum, 0.80 cfs Dec. 15, 1965.

REMARKS.--Records fair. Flow augmented by ground water pumped into stream 0.5 mile above station at times causing slight regulation and by diversion from Dog River (Hood River basin) into South Fork Mill Creek several miles above station during low-flow periods. Water stored in Crow Creek Reservoir since February 1969 (capacity, 990 acre-ft). Only monthly discharges are adjusted for the augmented flow.

COOPERATION.--Records of ground-water pumpage furnished by the city of The Dalles.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.7	7.4	8.9	79	21	71	38	19	16	13	8.9
2	6.4	6.7	7.0	16	71	19	65	44	18	16	13	8.4
3	6.4	6.7	7.4	7.4	60	20	60	58	17	16	13	8.9
4	6.1	6.7	7.4	17	50	20	57	74	16	16	13	8.9
5	6.4	7.0	7.4	8.9	42	20	57	72	15	16	13	8.4
6	6.1	6.7	7.9	7.4	36	18	65	60	15	15	13	7.9
7	6.1	6.7	9.4	8.4	31	19	76	51	14	15	12	7.9
8	6.1	7.0	9.4	12	27	19	76	47	13	15	12	7.9
9	6.1	6.7	8.4	28	24	20	74	46	12	15	11	7.4
10	6.1	6.7	7.9	32	25	23	72	42	12	15	11	7.9
11	6.4	7.4	8.9	25	28	34	66	38	11	16	11	7.4
12	6.4	8.4	8.4	20	32	47	58	39	11	15	10	7.4
13	6.4	6.4	7.9	16	38	56	52	39	11	15	10	7.4
14	6.1	5.8	7.9	14	42	54	47	37	10	15	9.9	7.4
15	6.1	5.8	8.4	34	47	51	47	34	13	15	9.9	7.4
16	6.1	6.4	8.4	74	45	47	48	31	18	15	9.4	7.4
17	6.1	6.1	8.4	120	41	43	47	28	19	14	9.4	7.4
18	6.1	6.7	7.4	128	38	41	43	25	20	14	8.9	7.4
19	6.1	6.4	6.1	109	34	39	38	23	20	14	8.9	7.4
20	6.4	6.4	7.9	88	30	39	38	22	19	14	8.9	7.4
21	6.7	6.1	7.4	98	27	39	35	21	19	14	8.9	7.4
22	6.7	5.8	6.7	89	26	42	34	19	18	13	8.9	7.4
23	7.0	7.4	6.4	72	24	47	31	19	18	13	8.4	7.4
24	6.7	14	6.1	61	23	59	29	19	18	13	8.4	7.4
25	6.7	11	6.1	55	24	68	27	21	19	13	8.4	7.4
26	6.4	8.9	5.8	46	23	79	27	22	18	13	7.9	7.4
27	6.4	8.[illegible]	5.8	45	23	83	30	21	18	13	7.9	7.4
28	6.4	8.4	6.1	41	22	78	34	21	17	13	7.9	7.9
29	6.4	7.9	6.1	38	------	74	38	21	17	13	7.9	8.4
30	6.4	7.4	6.1	41	------	77	38	19	17	13	7.9	8.9
31	6.7	------	11	76	------	76	------	18	------	13	7.9	------
TOTAL	196.9	218.7	232.9	1,436.0	1,012	1,372	1,480	1,069	482	446	310.7	233.5
MEAN	6.35	7.29	7.51	46.3	36.1	44.3	49.3	34.5	16.1	14.4	10.0	7.78
MAX	7.0	14	11	128	79	83	76	74	20	16	13	8.9
MIN	6.1	5.8	5.8	7.4	22	18	27	18	10	13	7.9	7.4
AC-FT	391	434	462	2,850	2,010	2,720	2,940	2,120	956	885	616	463
MEAN†	4.18	5.55	7.51	46.4	36.2	44.2	49.4	34.5	10.0	3.87	2.63	3.33
CFSM†	.15	.20	.27	1.66	1.29	1.58	1.76	1.23	.36	.14	.09	.12
IN.†	.17	.22	.31	1.91	1.35	1.82	1.97	1.42	.40	.16	.11	.13
AC-FT†	257	330	462	2,850	2,010	2,720	2,940	2,120	596	238	162	198

CAL YR 1970 TOTAL 8,603.7 MEAN 23.6 MAX 238 MIN 4.9 AC-FT 17,070 MEAN† 21.3 CFSM† .76 IN.† 10.33 AC-FT† 15,420
WTR YR 1971 TOTAL 8,489.7 MEAN 23.3 MAX 128 MIN 5.8 AC-FT 16,840 MEAN† 20.5 CFSM† .73 IN.† 9.95 AC-FT† 14,860

PEAK DISCHARGE (BASE, 90 CFS).--Jan. 17 (2230) 174 cfs (2.84 ft); Jan. 21 (1600) 110 cfs (2.36 ft).

† Adjusted for diversion and pumpage.

14113200 Mosier Creek near Mosier, Oreg.

LOCATION.--Lat 45°38'55", long 121°22'35", in NW¼NW¼ sec.19, T.2 N., R.12 E., Wasco County, on left bank 0.1 mile downstream from West Fork Mosier Creek, 2.5 miles southeast of Mosier, and at mile 3.0.

DRAINAGE AREA.--41.5 sq mi.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 425 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 26.6 cfs (19,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 730 cfs Jan. 17 (gage height, 5.18 ft); minimum, 0.63 cfs Aug. 9, 11-13.
Period of record: Maximum discharge, 4,790 cfs Dec. 23, 1964 (gage height, 8.9 ft from flood profile), from rating curve extended above 1,000 cfs on basis of slope-area measurement of peak flow; minimum, 0.60 cfs July 31, 1968.

REMARKS.--Records good. No regulation. Several small pumping diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.9	9.2	60	99	47	114	36	8.3	3.0	1.1	4.8
2	1.9	2.9	7.9	43	89	44	100	37	7.5	3.0	1.0	3.9
3	2.0	2.9	8.3	34	77	50	92	39	6.7	2.8	1.0	2.5
4	2.2	2.9	8.8	26	70	52	89	42	6.3	2.8	1.0	2.1
5	2.3	3.4	12	22	60	50	90	40	5.5	2.8	1.1	1.9
6	2.4	3.5	16	18	52	48	95	37	4.8	3.0	1.0	1.9
7	2.5	3.4	28	15	46	49	99	33	4.5	2.8	1.0	1.8
8	2.5	4.0	32	24	41	49	90	31	4.8	2.5	1.0	1.8
9	2.6	4.3	25	91	38	49	87	28	5.5	2.8	.89	1.6
10	2.6	3.9	20	133	45	69	81	24	5.5	3.0	.80	1.6
11	2.5	5.7	19	100	47	115	75	22	5.5	3.0	.80	1.8
12	2.5	7.9	16	71	47	137	65	20	5.1	2.8	.71	1.8
13	2.6	5.4	14	58	47	144	61	20	5.1	2.5	.71	1.6
14	2.6	4.4	13	46	49	132	60	18	5.5	2.3	.80	1.6
15	2.6	4.2	18	55	56	121	63	16	4.8	2.1	.89	1.6
16	2.7	5.6	22	190	57	103	60	16	4.8	1.9	.89	1.5
17	2.9	5.1	20	490	56	93	56	15	4.5	1.8	.89	1.5
18	3.0	6.3	17	454	56	84	50	13	4.8	1.6	.89	1.5
19	3.0	6.0	14	403	54	79	47	12	4.8	1.8	.89	1.5
20	4.1	5.4	13	272	50	76	47	11	4.5	1.6	.89	1.5
21	4.6	5.1	12	194	47	74	44	11	4.2	1.3	1.0	1.5
22	4.1	4.4	9.7	148	47	76	42	9.7	3.9	1.2	1.1	1.5
23	4.9	4.4	8.3	127	45	82	40	8.8	3.6	1.2	1.2	1.6
24	4.9	20	7.4	115	49	130	38	8.3	3.9	1.2	1.1	1.6
25	4.0	27	7.0	125	51	138	36	8.3	4.8	1.2	1.0	1.9
26	3.4	16	6.6	119	50	146	37	9.2	4.2	1.1	1.0	2.1
27	3.0	16	6.2	103	52	154	38	8.8	3.9	1.0	1.0	2.1
28	3.0	15	6.6	91	50	146	40	7.9	3.9	1.1	1.0	2.1
29	3.0	12	10	81	------	144	38	7.0	3.9	1.1	1.0	2.5
30	2.9	10	23	90	------	150	36	6.7	3.3	1.1	1.2	2.5
31	3.0	------	81	108	------	132	------	6.3	------	1.2	1.5	------
TOTAL	92.2	220.0	511.0	3,906	1,527	2,963	1,910	602.0	148.4	62.6	30.35	59.2
MEAN	2.97	7.33	16.5	126	54.5	95.6	63.7	19.4	4.95	2.02	.98	1.97
MAX	4.9	27	81	490	99	154	114	42	8.3	3.0	1.5	4.8
MIN	1.9	2.9	6.2	15	38	44	36	6.3	3.3	1.0	.71	1.5
AC-FT	183	436	1,010	7,750	3,030	5,880	3,790	1,190	294	124	60	117

CAL YR 1970 TOTAL 11,253.50 MEAN 30.8 MAX 708 MIN 1.4 AC-FT 22,320
WTR YR 1971 TOTAL 12,031.75 MEAN 33.0 MAX 490 MIN .71 AC-FT 23,860

PEAK DISCHARGE (BASE, 110 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-10	1100	3.22	148	1-31	0400	2.96	110
1-17	2300	5.18	730	3-12	2230	3.28	157
1-19	1430	4.66	508	3-27	1800	3.31	162

14113400 Dog River near Parkdale, Oreg.

LOCATION.--Lat 45°24'30", long 121°31'10", in SW¼ sec.11, T.2 S., R.10 E., Hood River County, Mount Hood National Forest, on right bank 100 ft upstream from city of The Dalles municipal diversion to Mill Creek basin, and 8.8 miles south of Parkdale.

DRAINAGE AREA.--4.50 sq mi.

PERIOD OF RECORD.--October 1959 to September 1971 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,347 ft above mean sea level (levels by city of The Dalles).

AVERAGE DISCHARGE.--12 years, 7.09 cfs (21.40 inches per year, 5,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 48 cfs June 6 (gage height, 3.72 ft); minimum, not determined, probably occurred Jan. 4-6.
Period of record: Maximum discharge, 100 cfs May 29, 1969 (gage height, 3.92 ft), from rating curve extended above 30 cfs; minimum, 0.03 cfs Dec. 17, 1967, result of freezeup.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1738: 1960. WSP 1935: 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.1	3.0	2.2	8.4	7.7	5.2	6.9	35	24	11	8.6
2	2.2	2.1	2.8	2.0	8.1	7.9	5.2	7.7	32	23	11	6.5
3	2.2	2.1	2.6	1.5	8.1	7.7	5.1	8.9	31	23	10	5.7
4	2.1	2.4	2.9	1.0	8.1	7.3	5.1	11	30	23	9.9	5.4
5	2.1	3.1	4.5	1.0	8.1	7.1	5.2	12	30	22	9.6	5.4
6	2.1	2.6	4.5	1.0	8.1	7.1	5.4	12	29	21	9.4	5.2
7	2.1	2.4	4.3	2.0	7.9	6.9	5.4	13	30	21	8.9	5.1
8	2.1	2.8	3.6	3.0	7.9	6.7	5.6	14	29	20	8.6	4.9
9	2.1	2.6	3.4	4.1	7.7	6.5	5.9	15	29	21	8.4	4.8
10	2.1	2.5	3.4	3.5	11	6.5	5.7	16	29	20	8.1	4.6
11	2.0	4.2	3.2	3.4	10	6.3	5.7	18	28	20	7.9	4.5
12	2.0	3.0	3.0	3.2	9.6	6.3	5.6	22	29	19	7.5	4.5
13	2.0	2.6	3.0	3.2	9.9	6.1	5.6	24	30	19	7.3	4.3
14	2.0	2.4	3.0	3.0	11	5.9	5.6	24	28	19	7.1	4.2
15	2.0	2.6	3.0	3.1	11	5.7	5.7	25	28	19	7.1	4.2
16	2.0	3.4	2.9	4.6	11	5.6	5.7	24	26	20	6.9	4.2
17	2.0	2.6	2.6	9.4	11	5.6	5.7	22	25	19	6.7	4.0
18	2.1	2.4	2.5	9.4	11	5.4	5.6	20	28	20	6.3	4.0
19	2.1	2.3	2.4	13	10	5.4	5.6	20	29	19	6.3	4.0
20	2.3	2.2	2.3	12	9.9	5.4	5.7	19	30	19	6.1	3.9
21	2.3	2.5	2.2	11	9.6	5.4	5.6	18	32	18	5.9	3.9
22	2.3	1.5	2.2	11	9.6	5.6	5.6	18	37	18	5.9	3.9
23	3.2	11	2.1	11	9.4	5.9	5.6	19	39	17	5.6	3.8
24	2.4	13	2.1	9.9	9.4	5.9	5.6	20	35	16	5.4	3.8
25	2.3	5.2	2.0	9.6	8.9	5.7	5.6	23	42	15	5.4	3.9
26	2.2	3.9	2.0	9.4	8.6	5.7	5.6	28	32	14	5.2	3.9
27	2.3	3.9	2.0	8.9	8.6	5.4	5.9	30	29	13	5.1	3.8
28	2.2	3.5	2.0	8.6	8.1	5.4	6.1	35	26	13	5.1	3.9
29	2.1	3.1	2.0	8.4	------	5.4	6.1	38	25	12	4.8	3.9
30	2.1	3.0	2.5	8.6	------	5.4	6.5	36	24	12	4.8	3.8
31	2.1	------	2.5	8.6	------	5.2	------	35	------	12	4.9	------
TOTAL	67.3	103.0	86.5	190.6	260.0	190.1	168.5	634.5	906	571	222.2	136.6
MEAN	2.17	3.43	2.79	6.15	9.29	6.13	5.62	20.5	30.2	18.4	7.17	4.55
MAX	3.2	13	4.5	13	11	7.9	6.5	38	42	24	11	8.6
MIN	2.0	1.5	2.0	1.0	7.7	5.2	5.1	6.9	24	12	4.8	3.8
CFSM	.48	.76	.62	1.37	2.06	1.36	1.25	4.56	6.71	4.09	1.59	1.01
IN.	.56	.85	.72	1.58	2.15	1.57	1.39	5.25	7.49	4.72	1.84	1.13
AC-FT	133	204	172	378	516	377	334	1,260	1,800	1,130	441	271

CAL YR 1970 TOTAL 2,498.78 MEAN 6.85 MAX 32 MIN .22 CFSM 1.52 IN 20.66 AC-FT 4,960
WTR YR 1971 TOTAL 3,536.30 MEAN 9.69 MAX 42 MIN 1.0 CFSM 2.15 IN 29.23 AC-FT 7,010

PEAK DISCHARGE (BASE, 20 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-23	2345	3.44	30	6-25	0345	3.72	48
5-31	2045	3.61	39				

14118500 West Fork Hood River near Dee, Oreg.

LOCATION.--Lat 45°35'55", long 121°38'05", in SE¼ sec.1, T.1 N., R.9 E., Hood River County, on left bank 0.3 mile upstream from Dead Point Creek, 0.8 mile northwest of Dee, and at mile 0.4.

DRAINAGE AREA.--95.6 sq mi.

PERIOD OF RECORD.--September 1913 to February 1916 (incomplete), June 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 802.1 ft above mean sea level. Sept. 1, 1913, to Feb. 12, 1916, nonrecording gage at site 0.5 mile upstream at different datum.

AVERAGE DISCHARGE.--40 years (1913-14, 1932-71), 559 cfs (405,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,000 cfs Jan. 19 (gage height, 10.45 ft); minimum, 127 cfs Oct. 4.
Period of record: Maximum discharge not determined, Dec. 22, 1964 (gage height, 27.0 ft, from floodmarks); maximum daily, 15,000 cfs Dec. 23, 1964; minimum, 93 cfs Aug. 22, 1941.

REMARKS.--Records excellent. No regulation. Dee Irrigation District canal diverts from right bank about 6 miles above station for irrigation above station and in Middle Fork basin. Diversions from Green Point Creek basin above station for irrigation near Oak Grove; water from two of these diversions is carried in Hood River Irrigation District canal.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	203	474	868	1,620	534	830	858	695	450	297	458
2	132	194	423	653	1,330	538	765	1,060	631	446	269	486
3	134	189	413	537	1,080	591	730	1,400	600	427	251	530
4	131	191	367	483	1,020	538	715	1,510	600	416	246	342
5	144	208	494	472	846	494	745	1,240	655	413	246	280
6	185	227	765	411	725	466	840	1,040	680	399	246	264
7	170	244	1,200	372	641	466	888	1,120	720	371	246	236
8	158	336	1,060	699	580	446	912	1,260	690	374	246	224
9	170	423	805	2,770	596	430	1,210	1,190	655	381	236	215
10	191	371	690	2,360	2,240	740	1,120	1,090	660	395	236	208
11	166	710	750	1,360	1,850	966	966	1,150	680	409	232	220
12	154	1,150	604	978	1,400	876	825	1,350	660	374	224	203
13	146	720	534	779	1,380	785	775	1,420	710	351	220	196
14	138	526	514	674	1,540	710	790	1,170	882	348	215	187
15	136	498	582	1,220	1,940	631	882	1,050	715	360	205	180
16	134	1,350	553	2,520	1,450	568	790	1,070	650	371	200	178
17	134	942	496	3,250	1,130	526	735	876	604	364	198	172
18	142	1,160	433	3,220	978	498	685	780	655	354	196	168
19	152	1,100	391	5,920	846	482	650	840	705	357	196	170
20	196	1,000	378	2,950	740	478	670	810	675	364	200	170
21	262	765	347	1,790	675	474	631	750	675	345	210	166
22	272	577	322	1,360	636	506	600	810	715	318	234	164
23	609	595	304	1,490	600	690	600	930	715	309	205	164
24	604	3,820	291	1,700	825	1,230	582	1,020	636	300	189	164
25	470	1,910	279	2,410	775	990	586	1,050	906	294	189	208
26	351	1,160	270	2,220	695	894	705	1,080	690	292	187	198
27	289	912	265	1,550	645	810	790	1,070	591	292	187	185
28	254	710	280	1,210	591	760	785	1,130	522	294	187	205
29	234	582	310	1,040	------	888	750	1,070	474	306	187	254
30	217	526	1,320	1,640	------	1,190	765	864	450	312	189	212
31	210	------	1,510	1,870	------	996	------	725	------	300	212	------
TOTAL	6,821	23,299	17,424	50,776	29,374	21,191	23,317	32,783	19,896	11,086	6,781	7,007
MEAN	220	777	562	1,638	1,049	684	777	1,058	663	358	219	234
MAX	609	3,820	1,510	5,920	2,240	1,230	1,210	1,510	906	450	297	530
MIN	131	189	265	372	580	430	582	725	450	292	187	164
AC-FT	13,530	46,210	34,560	100,700	58,260	42,030	46,250	65,030	39,460	21,990	13,450	13,900

CAL YR 1970 TOTAL 228,158 MEAN 625 MAX 6,000 MIN 131 AC-FT 452,600
WTR YR 1971 TOTAL 249,755 MEAN 684 MAX 5,920 MIN 131 AC-FT 495,400

PEAK DISCHARGE (BASE, 4,100 CFS).--Nov. 24 (0600) 4,910 cfs (8.09 ft); Jan. 19 (1100) 9,000 cfs (10.45 ft).

14120000 Hood River at Tucker Bridge, near Hood River, Oreg.

LOCATION.--Lat 45°39'20", long 121°32'50", in SE¼ sec.15, T.2 N., R.10 E., Hood River County, on right bank 25 ft downstream from Tucker Bridge, 0.5 mile upstream from Odell Creek, 4.5 miles southwest of Hood River, and at mile 6.1.

DRAINAGE AREA.--279 sq mi.

PERIOD OF RECORD.--October 1897 to December 1899, September 1913 to September 1914, August 1915 to September 1917, January 1965 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 383.2 ft above mean sea level (Oregon State Highway Department bench mark). Prior to July 23, 1915, nonrecording gage at bridge at various datums. July 23 to Dec. 21, 1915, water-stage recorder at site 0.8 mile upstream at different datum. January 1916 to September 1917, nonrecording gage at bridge at different datum. Jan. 16 to July 23, 1965, nonrecording gage at bridge.

AVERAGE DISCHARGE.--11 years (1897-99, 1913-14, 1915-17, 1965-71), 1,150 cfs (833,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,200 cfs Jan. 19 (gage height, 11.70 ft from floodmark); minimum, 287 cfs Oct. 1.

Period of record: Maximum discharge observed, 15,200 cfs, Jan. 21, 1899 (gage height, 13.0 ft, datum then in use); minimum recorded, 136 cfs Sept. 16, 1915, caused by temporary storage behind dam at Dee.

Flood of Dec. 22, 1964, reached a stage of 20.6 ft, present datum (discharge, 33,200 cfs), from rating curve extended above 1,500 cfs on basis of slope-area measurement of peak flow.

REMARKS.--Records good. Some daily fluctuation caused by diversion dam above station and sawmill at Dee. Diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1318: 1899. WSP 1935: Drainage area. WRD Oreg. 1966(M,P), 1967(M,P), 1968(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	371	927	1,590	2,710	1,190	1,600	1,480	1,460	1,030	880	1,060
2	299	365	852	1,230	2,380	1,160	1,510	1,740	1,340	1,040	805	1,030
3	308	359	834	1,050	2,030	1,150	1,450	2,130	1,280	1,010	688	955
4	305	376	777	938	1,950	1,150	1,420	2,410	1,290	985	659	673
5	309	429	927	864	1,710	1,150	1,450	2,140	1,360	975	670	596
6	341	458	1,260	828	1,530	1,110	1,550	1,860	1,390	940	696	575
7	332	462	1,750	809	1,420	1,100	1,620	1,920	1,440	870	684	513
8	326	594	1,690	1,110	1,330	1,090	1,630	2,120	1,390	860	677	489
9	359	712	1,330	4,500	1,330	1,070	1,990	2,050	1,360	880	649	477
10	380	677	1,170	3,910	3,020	1,500	1,890	1,920	1,340	920	638	477
11	352	1,070	1,290	2,440	2,940	1,890	1,720	1,990	1,360	915	617	513
12	331	1,700	1,080	1,810	2,460	1,750	1,530	2,310	1,340	840	600	480
13	309	1,090	992	1,500	2,380	1,640	1,460	2,430	1,370	800	582	474
14	301	858	948	1,330	2,320	1,520	1,460	2,080	1,590	820	544	453
15	294	794	1,030	2,040	2,290	1,420	1,560	1,900	1,370	865	492	435
16	294	1,880	1,080	4,370	2,290	1,300	1,470	1,900	1,280	925	459	435
17	296	1,370	955	6,050	2,150	1,220	1,410	1,600	1,220	955	447	415
18	308	1,590	855	6,190	1,910	1,180	1,330	1,470	1,260	960	435	405
19	313	1,530	789	10,000	1,750	1,140	1,280	1,510	1,370	980	453	405
20	368	1,390	788	4,920	1,560	1,140	1,300	1,530	1,340	990	474	405
21	457	1,120	744	3,460	1,480	1,130	1,250	1,430	1,370	985	495	395
22	477	902	709	2,740	1,420	1,200	1,210	1,460	1,460	895	544	393
23	877	904	680	2,720	1,340	1,410	1,190	1,600	1,550	840	477	395
24	888	5,860	664	2,910	1,320	2,100	1,170	1,740	1,400	805	423	395
25	714	3,070	645	3,830	1,320	1,820	1,170	1,810	1,770	800	423	438
26	560	1,860	631	3,570	1,320	1,750	1,310	1,920	1,480	795	435	444
27	463	1,500	624	2,710	1,320	1,640	1,400	1,910	1,300	800	441	413
28	417	1,220	639	2,280	1,270	1,540	1,420	2,030	1,180	815	438	432
29	390	1,040	707	2,030	------	1,650	1,370	2,020	1,080	845	456	501
30	374	977	1,840	2,720	------	2,030	1,390	1,710	1,030	875	474	453
31	370	------	2,500	3,070	------	1,810	------	1,500	------	850	495	------
TOTAL	12,413	36,528	31,707	89,519	52,250	43,950	43,510	57,620	40,770	27,865	17,250	15,524
MEAN	400	1,218	1,023	2,888	1,866	1,418	1,450	1,859	1,359	899	556	517
MAX	888	5,860	2,500	10,000	3,020	2,100	1,990	2,430	1,770	1,040	880	1,060
MIN	294	359	624	809	1,270	1,070	1,170	1,430	1,030	795	423	393
AC-FT	24,620	72,450	62,890	177,600	103,600	87,170	86,300	114,300	80,870	55,270	34,220	30,790

CAL YR 1970 TOTAL 408,057 MEAN 1,118 MAX 9,530 MIN 267 AC-FT 809,400
WTR YR 1971 TOTAL 468,906 MEAN 1,285 MAX 10,000 MIN 294 AC-FT 930,100

PEAK DISCHARGE (BASE, 4,500 CFS)

NOTE.--No gage-height record Jan. 19.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0630	9.06	7,720	1-19	1100	11.70	13,200
1- 9	-	-	-				

14134000 Salmon River near Government Camp, Oreg.

LOCATION.--Lat 45°15'55", long 121°43'00", in SE¼NW¼ sec.31, T.3 S., R.9 E., Clackamas County, Mount Hood National Forest, on right bank near lower end of Red Top Meadows and 3.0 miles southeast of Government Camp.

DRAINAGE AREA.--8.7 sq mi, approximately.

PERIOD OF RECORD.--May 1910 to May 1912, April 1926 to current year. Published as "near Rowe" 1910-12.

GAGE.--Water-stage recorder. Datum of gage is 3,445.53 ft above mean sea level. Prior to Nov. 21, 1910, nonrecording gage at site 0.2 mile upstream at different datum. Nov. 21, 1910, to May 31, 1912, and Apr. 21, 1926, to Sept. 30, 1933, at site 75 ft upstream from former site at different datums. Oct. 1, 1933, to Sept. 30, 1960, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--46 years (1910-11, 1926-71), 44.4 cfs (69.30 inches per year, 32,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 303 cfs Nov. 24 (gage height, 3.11 ft); minimum, 18 cfs Oct. 1-4, 17.

Period of record: Maximum discharge, 1,300 cfs Dec. 23, 1964 (gage height, 4.75 ft), from rating curve extended above 310 cfs on basis of slope-area measurement of peak flow; minimum, 10 cfs Nov. 27, 1952.

REMARKS.--Records excellent. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 769: Drainage area. WSP 1398: 1911-12, 1926-27, 1933(M), 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	39	24	64	38	33	60	89	89	57	71
2	19	23	36	27	59	38	33	73	87	88	54	72
3	19	23	35	23	53	37	33	91	87	85	51	46
4	18	23	34	23	50	37	35	103	91	85	50	36
5	27	26	43	22	46	35	38	87	94	81	49	34
6	27	24	52	22	43	35	41	81	100	82	49	34
7	22	24	55	24	41	35	41	101	104	77	48	32
8	21	28	44	60	40	34	39	105	105	77	48	31
9	28	34	38	103	48	33	45	102	102	78	46	31
10	24	26	38	69	111	34	41	97	105	77	44	31
11	22	49	40	47	80	35	38	113	104	75	44	32
12	20	54	36	39	69	36	37	125	103	72	43	30
13	20	34	34	36	73	34	37	120	106	73	42	30
14	19	29	34	34	76	33	41	104	112	74	41	29
15	19	29	34	39	80	32	41	96	104	75	39	28
16	19	50	32	72	66	31	38	86	100	75	38	27
17	18	35	30	90	60	31	37	78	94	72	38	26
18	20	53	29	118	55	30	36	76	103	73	37	26
19	20	61	29	155	51	31	36	82	103	71	37	26
20	23	43	28	101	48	31	38	78	105	71	38	27
21	27	35	27	73	46	31	36	80	114	68	38	26
22	27	31	26	63	44	35	35	88	122	64	41	26
23	41	46	26	57	43	41	35	103	119	63	36	26
24	31	212	25	53	49	44	35	107	105	61	35	27
25	24	87	25	52	44	38	38	112	125	61	34	34
26	22	64	25	62	42	37	47	122	102	60	34	28
27	21	56	25	53	41	35	48	124	94	60	34	27
28	20	47	25	47	39	34	44	131	88	60	33	29
29	20	42	25	44	------	35	45	126	86	60	34	29
30	20	41	27	70	------	38	49	106	88	59	35	27
31	21	------	27	74	------	35	------	95	------	57	38	------
TOTAL	698	1,351	1,023	1,776	1,561	1,083	1,170	3,052	3,041	2,223	1,285	978
MEAN	22.5	45.0	33.0	57.3	55.8	34.9	39.0	98.5	101	71.7	41.5	32.6
MAX	41	212	55	155	111	44	49	131	125	89	57	72
MIN	18	22	25	22	39	30	33	60	86	57	33	26
CFSM	2.59	5.17	3.79	6.59	6.41	4.01	4.48	11.3	11.6	8.24	4.77	3.75
IN.	2.98	5.78	4.37	7.59	6.67	4.63	5.00	13.05	13.00	9.51	5.49	4.18
AC-FT	1,380	2,680	2,030	3,520	3,100	2,150	2,320	6,050	6,030	4,410	2,550	1,940

CAL YR 1970 TOTAL 15,610 MEAN 42.8 MAX 216 MIN 18 CFSM 4.92 IN 66.75 AC-FT 30,960
WTR YR 1971 TOTAL 19,241 MEAN 52.7 MAX 212 MIN 18 CFSM 6.06 IN 82.27 AC-FT 38,160

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 24 (0400) 303 cfs (3.11 ft); Jan. 19 (1200) 210 cfs (2.70 ft).

SANDY RIVER BASIN

14137000 Sandy River near Marmot, Oreg.

LOCATION.--Lat 45°23'30", long 122°07'40", in SE¼ sec.13, T.2 S., R.5 E., Clackamas County, on right bank 0.7 mile southwest of Marmot, 0.8 mile upstream from Sandy River Dam of Portland General Electric Co., 6.6 miles downstream from Salmon River, and at mile 30.9.

DRAINAGE AREA.--262 sq mi.

PERIOD OF RECORD.--August 1911 to current year. Published as "at Marmot" October 1912 to September 1913. Records for January 1916 to June 1919, published as "below dam, near Marmot," obtained by combining records for Sandy River below dam, near Marmot, with records for Sandy River Canal near Marmot.

GAGE.--Water-stage recorder. Altitude of gage is 730 ft (from river-profile map). Aug. 15, 1911, to Dec. 20, 1915, and July 2, 1919, to Oct. 19, 1933, nonrecording gage at site 1 mile upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE.--60 years, 1,366 cfs (70.80 inches per year, 989,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,900 cfs Jan. 19 (gage height, 14.02 ft); minimum, 315 cfs Oct. 2, 4.
Period of record: Maximum discharge, 61,400 cfs Dec. 22, 1964 (gage height, 17.05 ft), from rating curve extended above 7,000 cfs; minimum, 195 cfs Nov. 27, 28, 1952.

REMARKS.--Records excellent. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 594: Drainage area. WSP 1288: 1912(M). 1915, 1922, 1924, 1934(M). WSP 1318: 1932(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	550	1,640	1,790	3,260	1,240	1,800	1,950	2,090	1,220	770	954
2	325	543	1,300	1,360	2,710	1,240	1,650	2,580	1,920	1,180	690	1,400
3	330	529	1,340	1,160	2,210	1,380	1,570	3,190	1,830	1,140	622	1,080
4	325	515	1,200	1,030	2,170	1,240	1,580	3,540	1,780	1,110	608	706
5	396	543	1,770	953	1,870	1,150	1,880	3,020	1,800	1,080	622	608
6	494	564	2,510	900	1,640	1,120	2,240	2,550	1,850	1,060	629	573
7	420	564	3,250	878	1,500	1,220	2,090	2,810	1,970	990	629	510
8	384	668	2,670	1,940	1,390	1,230	1,970	3,210	1,920	963	615	486
9	480	896	2,040	7,370	1,520	1,190	2,590	2,870	1,850	990	594	474
10	606	932	1,780	6,620	5,840	2,010	2,560	2,630	1,880	1,030	587	468
11	487	1,480	1,940	3,710	4,230	2,700	2,200	2,900	1,850	1,000	573	498
12	438	2,920	1,640	2,530	3,400	2,920	1,880	3,600	1,840	927	559	456
13	402	1,640	1,440	1,990	3,240	2,440	1,740	3,520	1,910	891	545	450
14	372	1,220	1,400	1,740	3,230	2,040	1,750	2,920	2,170	891	524	426
15	350	1,050	1,580	2,530	3,850	1,760	1,850	2,590	1,910	918	492	414
16	340	1,440	1,750	4,650	2,930	1,530	1,730	2,510	1,760	936	480	402
17	335	1,350	1,490	6,310	2,360	1,390	1,620	2,120	1,650	927	474	380
18	360	1,940	1,270	8,290	2,090	1,280	1,560	1,950	1,710	918	468	380
19	366	2,680	1,130	13,600	1,890	1,230	1,460	2,070	1,730	900	474	380
20	420	2,430	1,090	8,120	1,670	1,210	1,510	2,120	1,690	909	486	380
21	515	1,840	1,000	4,570	1,550	1,190	1,430	1,950	1,700	873	498	375
22	550	1,410	929	3,500	1,520	1,750	1,350	2,020	1,820	802	587	370
23	1,010	1,480	873	4,330	1,490	2,680	1,350	2,270	1,820	762	510	370
24	1,360	10,200	838	3,960	1,910	3,920	1,360	2,500	1,620	746	456	375
25	1,260	5,640	803	4,800	1,920	2,850	1,440	2,610	2,300	738	456	538
26	995	3,430	778	4,210	1,690	2,590	1,710	3,080	1,840	738	456	504
27	804	2,850	774	3,040	1,520	2,230	1,880	2,880	1,580	738	456	438
28	692	2,170	846	2,470	1,380	1,950	1,750	2,930	1,440	762	450	468
29	620	1,770	951	2,170	------	1,950	1,630	2,830	1,300	778	456	580
30	585	1,620	2,290	3,130	------	2,360	1,630	2,390	1,250	778	462	498
31	564	------	3,090	3,790	------	2,110	------	2,120	------	778	504	------
TOTAL	16,915	56,864	47,402	117,441	65,980	57,100	52,760	82,230	53,780	28,473	16,732	15,941
MEAN	546	1,895	1,529	3,788	2,356	1,842	1,759	2,653	1,793	918	540	531
MAX	1,360	10,200	3,250	13,600	5,840	3,920	2,590	3,600	2,300	1,220	770	1,400
MIN	325	515	774	878	1,380	1,120	1,350	1,950	1,250	738	450	370
CFSM	2.08	7.23	5.84	14.5	8.99	7.03	6.71	10.1	6.84	3.50	2.06	2.03
IN.	2.40	8.07	6.73	16.67	9.37	8.11	7.49	11.68	7.64	4.04	2.38	2.26
AC-FT	33,550	112,800	94,020	232,900	130,900	113,300	104,600	163,100	106,700	56,480	33,190	31,620

CAL YR 1970 TOTAL 507,733 MEAN 1,391 MAX 12,000 MIN 310 CFSM 5.31 IN 72.09 AC-FT 1,007,000
WTR YR 1971 TOTAL 611,618 MEAN 1,676 MAX 13,600 MIN 325 CFSM 6.40 IN 86.84 AC-FT 1,213,000

PEAK DISCHARGE (BASE, 7,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0600	12.68	13,900	1-19	1300	14.02	19,900
1- 9	2130	11.01	8,630				

14138800 Blazed Alder Creek near Rhododendron, Oreg.

LOCATION.--Lat 45°27'10, long 121°53'25", in sec.25, T.1 S., R.7 E., Clackamas County, Mount Hood National Forest, on right bank 600 ft below the confluence of Bedrock and Hickman Creeks and 8.6 miles north of Rhododendron.

DRAINAGE AREA.--8.17 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 59.2 cfs (98.40 inches per year, 42,890 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Jan. 19 (gage height, 4.98 ft); minimum, 2.7 cfs Aug. 27-30.
Period of record: Maximum discharge, 2,610 cfs Dec. 22, 1964 (gage height, 8.25 ft), from rating curve extended above 330 cfs on basis of slope-area measurement of peak flow; minimum, 1.5 cfs Sept. 5-10, 28, 29, 1967.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	22	33	61	139	34	65	120	69	33	6.1	42
2	6.8	21	29	45	99	30	55	170	61	31	5.7	86
3	6.2	19	25	35	72	34	50	200	57	29	5.5	98
4	6.2	18	24	30	64	32	50	220	61	27	5.3	42
5	13	20	80	27	51	28	60	160	67	26	5.1	28
6	20	22	110	24	41	26	70	140	74	27	5.0	21
7	13	25	158	23	36	32	65	160	81	24	4.6	17
8	11	52	115	95	33	36	100	180	73	22	4.6	14
9	17	64	73	571	52	34	170	150	68	22	4.3	12
10	21	54	66	323	390	80	130	130	83	25	4.2	10
11	16	166	81	130	228	160	100	160	78	26	4.1	13
12	13	248	57	73	154	140	80	190	72	22	3.8	10
13	13	114	47	51	156	90	70	220	87	20	3.8	8.6
14	11	67	45	63	188	65	70	170	114	19	3.8	8.0
15	9.2	66	55	126	223	50	80	120	79	18	3.6	7.4
16	8.6	173	55	268	129	40	70	130	67	18	3.4	6.2
17	8.0	119	42	308	80	35	65	120	59	17	3.4	5.6
18	13	166	35	332	63	30	60	100	81	16	3.4	5.6
19	14	184	30	650	51	28	52	120	85	15	3.2	5.6
20	36	173	28	239	42	27	54	120	71	14	3.1	5.1
21	52	99	25	119	40	27	52	100	67	13	3.2	5.1
22	60	63	24	78	39	50	48	100	66	11	5.7	4.6
23	171	91	23	117	39	80	48	110	64	11	4.5	4.6
24	149	543	21	121	110	200	50	120	55	9.7	3.7	5.1
25	102	210	20	240	90	100	54	130	104	9.0	3.4	24
26	61	106	18	208	65	90	65	140	66	8.4	3.1	17
27	48	72	17	110	55	70	80	135	54	7.9	3.1	14
28	35	51	19	72	42	60	70	129	46	7.4	3.0	25
29	29	42	22	57	------	60	65	118	39	7.1	2.8	41
30	25	36	140	141	------	100	70	81	35	6.8	2.8	28
31	22	------	135	182	------	80	------	66	------	6.5	6.7	------
TOTAL	1,017.4	3,106	1,652	4,919	2,771	1,948	2,118	4,309	2,083	548.8	128.0	613.5
MEAN	32.8	104	53.3	159	99.0	62.8	70.6	139	69.4	17.7	4.13	20.5
MAX	171	543	158	650	390	200	170	220	114	33	6.7	98
MIN	6.2	18	17	23	33	26	48	66	35	6.5	2.8	4.6
CFSM	4.01	12.7	6.52	19.5	12.1	7.69	8.64	17.0	8.49	2.17	.51	2.51
IN.	4.63	14.14	7.52	22.40	12.62	8.87	9.64	19.62	9.48	2.50	.58	2.79
AC-FT	2,020	6,160	3,280	9,760	5,500	3,860	4,200	8,550	4,130	1,090	254	1,220

CAL YR 1970 TOTAL 20,845.0 MEAN 57.1 MAX 874 MIN 1.8 CFSM 6.99 IN 94.91 AC-FT 41,350
WTR YR 1971 TOTAL 25,213.7 MEAN 69.1 MAX 650 MIN 2.8 CFSM 8.46 IN 114.80 AC-FT 50,010

NOTE.--No gage-height record, Feb. 25 to May 26.

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0430	4.55	850	1-19	1100	4.98	1,020
1- 9	1800	4.19	722				

14138850 Bull Run River near Multnomah Falls, Oreg.

LOCATION.--45°29'50", long 122°00'50", near center of sec.12, T.1 S., R.6 E., Multnomah County, Mount Hood National Forest, on right bank 1.2 miles above North Fork, 7.0 miles southeast of Multnomah Falls, and at mile 14.8.

DRAINAGE AREA.--47.9 sq mi.

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,080 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 422 cfs (119.64 inches per year, 305,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,650 cfs Jan. 19 (gage height, 10.96 ft); minimum, 61 cfs Sept. 24.
Period of record: Maximum discharge, 6,540 cfs Feb. 19, 1968 (gage height, 11.26 ft); minimum, 33 cfs Sept. 27, 1967.

REMARKS.--Records good. Water stored since 1915 in Bull Run Lake (capacity, 12,270 acre-ft). No diversion above station. Records of suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	158	287	584	965	275	465	552	481	276	144	390
2	70	143	254	391	720	276	411	781	437	257	140	742
3	67	133	240	303	524	302	384	958	415	243	135	942
4	65	130	218	254	496	264	391	1,030	408	232	133	392
5	99	142	692	228	406	239	475	835	422	219	130	260
6	128	147	1,130	207	345	230	548	676	436	224	127	212
7	103	162	1,440	198	301	302	525	740	498	207	124	167
8	88	292	1,010	790	274	310	713	931	466	197	120	140
9	152	391	625	3,700	443	279	1,270	753	429	202	117	123
10	220	329	544	2,220	2,600	799	934	664	498	219	114	111
11	156	900	679	930	1,470	1,070	646	722	486	233	110	135
12	128	1,440	482	562	1,050	983	498	1,010	454	204	107	110
13	111	720	380	415	1,050	638	457	1,050	539	190	103	98
14	98	450	384	347	1,220	471	459	798	765	182	102	91
15	90	470	557	1,070	1,500	383	534	691	562	177	100	86
16	84	1,580	580	1,960	944	323	463	779	482	172	97	81
17	79	880	412	2,070	632	282	422	601	422	164	96	76
18	96	1,210	323	2,250	499	257	379	510	474	156	93	74
19	119	1,260	271	4,190	414	244	341	613	570	148	90	72
20	230	1,040	249	1,680	357	237	357	615	462	142	88	70
21	384	679	218	879	327	229	338	528	436	194	89	67
22	415	443	200	646	334	458	305	532	446	238	121	66
23	1,100	593	184	1,190	347	868	337	605	454	196	101	63
24	1,000	3,010	172	1,210	775	1,360	308	657	401	188	89	62
25	745	1,340	160	1,850	630	806	320	684	806	179	86	152
26	490	740	152	1,600	453	669	423	751	570	172	82	144
27	344	580	152	885	382	525	514	663	443	167	80	112
28	269	443	200	620	322	483	508	657	371	163	79	178
29	225	353	235	552	------	566	453	631	323	157	77	314
30	198	323	1,560	1,230	------	818	449	511	295	153	75	211
31	174	------	1,320	1,270	------	598	------	438	------	149	101	------
TOTAL	7,602	20,481	15,310	36,281	19,780	15,544	14,597	21,966	14,251	5,970	3,250	5,741
MEAN	245	683	494	1,170	706	501	487	709	475	193	105	191
MAX	1,100	3,010	1,560	4,190	2,600	1,360	1,270	1,050	806	276	144	942
MIN	65	130	152	198	274	229	305	438	295	142	75	62
CFSM	5.11	14.3	10.3	24.4	14.7	10.5	10.2	14.8	9.92	4.03	2.19	3.99
IN.	5.90	15.91	11.89	28.18	15.36	12.07	11.34	17.06	11.07	4.64	2.52	4.46
AC-FT	15,080	40,620	30,370	71,960	39,230	30,830	28,950	43,570	28,270	11,840	6,450	11,390

CAL YR 1970 TOTAL 150,808 MEAN 413 MAX 4,960 MIN 51 CFSM 8.62 IN 117.12 AC-FT 299,100
WTR YR 1971 TOTAL 180,773 MEAN 495 MAX 4,190 MIN 62 CFSM 10.3 IN 140.39 AC-FT 358,600

PEAK DISCHARGE (BASE, 3,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0300	9.79	4,290	1-19	1030	10.96	5,650
1- 9	1830	9.83	4,330				

14138900 North Fork Bull Run River near Multnomah Falls, Oreg.

LOCATION.--Lat 45°29'40", long 122°02'05", in sec.11, near line between SE¼ and SW¼, T.1 S., R.6 E., Multnomah County, Mount Hood National Forest, on right bank 6.9 miles southeast of Multnomah Falls and at mile 0.1.

DRAINAGE AREA.--8.32 sq mi.

PERIOD OF RECORD.--August 1965 to current year.

AVERAGE DISCHARGE.--6 years, 73.5 cfs (119.97 inches per year, 53,250 acre-ft per year).

GAGE.--Water-stage recorder. Altitude of gage is 1,080 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 891 cfs Jan. 9 (gage height, 4.63 ft); minimum, 16 cfs Oct. 4.
Period of record: Maximum discharge, 1,160 cfs Jan. 18, 1970 (gage height, 4.98 ft, from floodmark); minimum, 9.8 cfs Sept. 27-29, 1967.

REMARKS.--Records fair. Regulation at times since 1958 by North Fork dam (capacity, about 1,030 acre-ft). No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	31	59	146	138	61	89	97	89	58	22	83
2	17	28	51	112	114	61	81	114	83	56	21	154
3	17	27	47	72	94	66	78	126	78	53	21	132
4	16	26	45	57	87	59	79	132	76	51	20	66
5	27	33	120	49	76	52	92	120	78	49	20	50
6	28	32	193	44	66	51	97	110	78	50	20	47
7	22	39	213	43	59	71	87	130	83	46	20	38
8	19	60	175	170	55	71	112	130	84	44	20	33
9	35	85	134	722	87	61	215	112	81	48	19	30
10	40	63	114	362	338	126	168	94	95	51	19	28
11	29	168	124	190	218	183	120	83	90	48	19	35
12	25	225	93	150	180	178	97	89	84	44	19	28
13	23	128	75	128	173	128	89	94	102	41	18	26
14	21	87	81	114	193	100	87	81	138	39	18	24
15	20	93	110	163	223	84	97	122	106	38	18	23
16	19	259	114	295	170	72	86	140	90	37	18	22
17	19	158	82	292	134	63	83	108	83	36	18	20
18	31	203	65	338	106	58	78	95	89	34	18	20
19	27	203	54	535	84	55	71	112	94	33	18	20
20	58	170	50	259	71	53	74	108	87	31	18	20
21	78	124	45	185	68	52	69	94	83	30	18	20
22	76	84	41	175	69	86	61	95	83	28	36	20
23	180	108	38	292	72	163	61	102	94	52	23	19
24	165	366	36	262	160	193	61	108	92	89	19	19
25	126	195	34	330	120	128	68	110	218	86	19	41
26	90	136	32	262	90	118	86	110	128	81	18	35
27	66	146	32	178	78	98	87	106	94	78	18	28
28	52	120	39	148	71	97	81	106	80	58	18	56
29	44	81	46	128	------	118	78	106	70	23	18	74
30	39	66	235	203	------	150	81	94	63	22	18	48
31	35	------	223	180	------	112	------	86	------	22	29	------
TOTAL	1,461	3,544	2,797	6,584	3,394	2,968	2,712	3,314	2,793	1,456	618	1,259
MEAN	47.1	118	90.2	212	121	95.7	90.4	107	93.1	47.0	19.9	42.0
MAX	180	366	235	722	338	193	215	140	218	89	36	154
MIN	16	26	32	43	55	51	61	81	63	22	18	19
CFSM	5.66	14.2	10.8	25.5	14.5	11.5	10.9	12.9	11.2	5.65	2.39	5.05
IN.	6.53	15.85	12.51	29.44	15.18	13.27	12.13	14.82	12.49	6.51	2.76	5.63
AC-FT	2,900	7,030	5,550	13,060	6,730	5,890	5,380	6,570	5,540	2,890	1,230	2,500

CAL YR 1970 TOTAL 25,854 MEAN 70.8 MAX 750 MIN 12 CFSM 8.51 IN 115.60 AC-FT 51,280
WTR YR 1971 TOTAL 32,900 MEAN 90.1 MAX 722 MIN 16 CFSM 10.8 IN 147.10 AC-FT 65,260

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0230	4.26	656	1- 9	1730	4.63	891
12-30	1830	4.00	510	1-19	0900	4.59	863

14139000 Bull Run Reservoir Number One near Bull Run, Oreg.

LOCATION.--Lat 45°28'50", long 122°04'50", in NW¼SW¼ sec.16, T.1 S., R.6 E., Multnomah County, in Mount Hood National Forest, in control house of Bear Creek Dam on Bull Run River, 8.2 miles northeast of Bull Run, and at mile 11.2.

DRAINAGE AREA.--74.6 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1937, published as Bull Run Reservoir. October 1937 to September 1967 published as Lake Ben Morrow.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland Water Bureau). Prior to Oct. 9, 1930 nonrecording gage, and Oct. 9, 1930 to September 30, 1962, water-stage recorder at present site and datum.

EXTREMES.--Current year: Maximum contents observed, 31,250 acre-ft June 25 (elevation, 1,046.57 ft); minimum observed, 13,700 acre-ft Mar. 2 (elevation, 995.22 ft).

Period of record: Maximum contents observed, 31,600 acre-ft Mar. 31, 1931 (elevation, 1,047.40 ft); minimum observed, 169 acre-ft Jan. 10, 1960 (elevation, 887.50 ft).

REMARKS.--Lake is formed by concrete dam completed in March 1929 for water supply of city of Portland, Storage began about Apr. 29, 1929; first filling occurred May 15, 1929. Capacity, 26,930 acre-ft at crest of spillway (elevation, 1,036.0 ft); capacity increased in October 1954 to 30,140 acre-ft at elevation 1,044.0 ft by installation of three gates 40 ft wide and 8 ft high. No dead storage. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland. Figures herein represent total contents.

COOPERATION.--Gage readings and capacity table furnished by Portland Water Bureau.

REVISIONS (WATER YEARS).--WSP 814: 1935(M). WSP 1935: Drainage area.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,001.60	15,450	-
Oct. 31	[g]1,036.84	27,260	+11,810
Nov. 30	[g]1,036.56	27,150	-110
Dec. 31	1,039.64	28,360	+1,210
CAL YR 1970	-	-	+1,020
Jan. 21	[g]1,035.75	26,840	-1,520
Feb. 28	1,002.70	15,770	-11,070
Mar. 31	1,037.78	27,620	+11,850
Apr. 30	1,037.18	27,390	-230
May 31	[g]1,040.48	28,690	+1,300
June 30	1,045.34	30,720	+2,030
July 31	[g]1,044.53	30,370	-350
Aug. 31	1,032.50	25,600	-4,770
Sept.30	1,028.90	24,280	-1,320
WTR YR 1971	-	-	+8,830

[g] Graphically interpolated.

14134700 Cedar Creek near Brightwood, Oreg.

LOCATION.--Lat 45°22'30", long 122°01'50", in SE¼ sec.26, T.1 S., R.6 E., Clackamas County, Mount Hood National Forest, on right bank 5.8 miles north of Brightwood and at mile 2.5.

DRAINAGE AREA.--7.93 sq mi.

PERIOD OF RECORD.--July to November 1964, June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,060 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 64.8 cfs (110.97 inches per year, 46,950 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,130 cfs Jan. 19 (gage height, 6.63 ft); minimum, 11 cfs Oct. 6.
Period of record: Maximum discharge, 1,990 cfs Dec. 22, 1964 (gage height, 7.20 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of peak flow; minimum, 7.1 cfs Aug. 29 to Sept. 3, 1970.

REMARKS.--Records good below 400 cfs, fair above. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]		[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	

[illegible]

14139900 Bull Run Reservoir Number Two near Bull Run, Oreg.

LOCATION.--Lat 45°26'33", long 122°08'49", on line between secs.25 and 26, T.1 S., R.5 E., Clackamas County, in Mount Hood National Forest, on south tower 0.3 mile above headworks dam, 4.6 miles northeast of Bull Run, and at mile 6.5.

DRAINAGE AREA.--102 sq mi.

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland Water Bureau).

EXTREMES.--Current year: Maximum contents observed, 22,100 acre-ft Jan. 10 (elevation, 862.64 ft); minimum observed, 14,800 acre-ft Nov. 9 (elevation, 844.40 ft).
Period of record: Maximum contents observed, 23,660 acre-ft Dec. 22, 1964 (elevation, 866.09 ft); no contents at times during low-flow periods.

REMARKS.--Reservoir is formed by earth and rock-fill dam with concrete spillway built by Portland Water Bureau. Storage began about Dec. 20, 1961; first filling occurred Dec. 26, 1961. Capacity, 20,980 acre-ft at crest of spillway (elevation, 860.0 ft). Dead storage negligible. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland Water Bureau.

MONTHEND ELEVATIONS AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. [illegible]	[illegible]	[illegible]	-
Oct. [illegible]	[illegible]	[illegible]	[illegible]
Nov. [illegible]	[illegible]	[illegible]	[illegible]
Dec. [illegible]	[illegible]	[illegible]	[illegible]
CAL YR 1970	-	-	[illegible]
Jan. [illegible]	[illegible]	[illegible]	[illegible]
Feb. [illegible]	[illegible]	[illegible]	[illegible]
Mar. [illegible]	[illegible]	[illegible]	[illegible]
Apr. [illegible]	[illegible]	[illegible]	[illegible]
May [illegible]	[illegible]	[illegible]	[illegible]
June [illegible]	[illegible]	[illegible]	[illegible]
July [illegible]	[illegible]	[illegible]	[illegible]
Aug. [illegible]	[illegible]	[illegible]	[illegible]
Sept. [illegible]	[illegible]	[illegible]	[illegible]
WTR YR 1971	-	-	[illegible]

14140000 Bull Run River near Bull Run, Oreg.

LOCATION.--Lat 45°26'15", long 122°10'40", in NE¼SW¼ sec.34, T.1 S., R.5 E., Clackamas County, Mount Hood National Forest, on left bank 1.8 miles downstream from Bull Run Reservoir Number Two, 2.7 miles northeast of Bull Run, and at mile 4.7.

DRAINAGE AREA.--107 sq mi.

PERIOD OF RECORD.--September 1907 to current year. Records for January 1895 to August 1907, published in WSP 370, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 307.80 ft above mean sea level (levels by Portland Water Bureau). Prior to July 27, 1909, nonrecording gage at site 1.5 miles upstream at different datum. July 27, 1909, to Sept. 30, 1910, water-stage recorder at site 2.5 miles upstream at different datum.

AVERAGE DISCHARGE.--66 years, 748 cfs (97.67 inches per year, 580,600 acre-ft per year), adjusted for storage in Bull Run Reservoir Number One since 1929 and Bull Run Reservoir Number Two since 1961.

EXTREMES.--Current year: Maximum discharge, 10,900 cfs Jan. 19 (gage height, 12.50 ft, from floodmark); minimum daily, 117 cfs Oct. 1.
Period of record: Maximum discharge, 22,100 cfs Dec. 22, 1964 (gage height, 17.21 ft), from rating curve extended above 6,000 cfs on basis of computation of peak flow over dam; minimum daily, 63 cfs Aug. 15-16, 1926.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Water stored since [illegible] in Bull Run Lake (capacity, 12,370 acre-ft) and since [illegible] in North Fork Reservoir (capacity, 1,030 acre-ft). Flow regulated since 1929 by Bull Run Reservoir Number One (see station [illegible]), and since 1961 by Bull Run Reservoir Number Two (see station [illegible]). All records given herein include flow diverted from Bull Run Reservoir Number Two for city of Portland, and that used by Portland General Electric Co. for power generation, which returns to Bull Run River below station. Total diversion, [illegible] acre-ft, of which [illegible] acre-ft was used for power generation and returned to Bull Run River.

COOPERATION.--Records of daily diversion furnished by Portland Water Bureau.

REVISIONS (WATER YEARS).--WSP [illegible]: [illegible]. WSP [illegible]: [illegible]. WSP [illegible]: [illegible]. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER [illegible] TO SEPTEMBER [illegible]

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

14141500 Little Sandy River near Bull Run, Oreg.

LOCATION.--Lat 45°24'33", long 122°10'20", in [illegible] sec.10, T.2 S., R.5 E., Clackamas County, Mount Hood National Forest, on left bank 0.25 mile upstream from Portland General Electric Co. dam and tunnel from Sandy River, 3.0 miles east of Bull Run, and at mile 1.95.

DRAINAGE AREA.--22.3 sq mi.

PERIOD OF RECORD.--May to July 1911, October 1911 to March 1912, June 1912 to April 1913, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 720 ft (from topographic map). May 23, 1911, to Apr. 29, 1913, nonrecording gage at site 0.05 mile downstream at different datum (0.3 mile downstream from Sandy River diversion tunnel). July 1, 1919, to Sept. 30, 1931, water-stage recorder at site 0.1 mile downstream at different datum. Oct. 1, 1931, to Nov. 3, 1967, at site 0.1 mile downstream at datum 712 ft above mean sea level. Nov. 4, 1967, water-stage recorder at site 0.1 mile downstream at datum 697.46 ft above mean sea level (Portland General Electric Co. bench mark).

AVERAGE DISCHARGE.--52 years (1919-71), 143 cfs ([illegible] inches per year, 103,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,[illegible] cfs Jan. 19 (gage height, 5.33 ft); minimum, 18 cfs Sept. 23, 26.
Period of record: Maximum discharge, 5,[illegible] cfs Dec. 20, 1921 (gage height, 9.10 ft, site and datum then in use), from rating curve extended above 2,[illegible] cfs; minimum, 0 cfs [illegible] 20, Sept. 16, 17, 1960.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP [illegible]. [illegible]. WSP [illegible] Drainage area. WSP 1388: 1912, 1920-21(M), 1922-23, 1931, 1943. WSP 1318: [illegible].

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14144800 Middle Fork Willamette River near Oakridge, Oreg.

LOCATION.--Lat 43°35'50", long 122°27'20", in NE¼ sec.9, T.23 S., R.3 E., Lane County, Willamette National Forest, on right bank 0.2 mile upstream from Windfall Creek, 8.3 miles upstream from Hills Creek Dam, 10 miles south of Oakridge, and at mile 240.8.

DRAINAGE AREA.--258 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,556.83 ft above mean sea level (levels by Corps of Engineers). Prior to June 21, 1967, at site 0.5 mile upstream at different datums. June 22, 1967, to June 23, 1971, water-stage recorder at same site at datum 5.00 ft higher.

AVERAGE DISCHARGE.--13 years, 793 cfs (41.74 inches per year, 574,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,900 cfs Jan. 18 (gage height, 8.13 ft); minimum, 230 cfs Oct. 16-18. Period of record: Maximum discharge, 39,800 cfs Dec. 22, 1964 (gage height, 16.96 ft, from floodmark, site and datum then in use), from rating curve extended above 5,100 cfs on basis of slope-area measurement of peak flow; minimum, 209 cfs Oct. 9, 10, 1968.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	835	1,090	1,090	1,170	820	1,400	1,470	1,430	1,090	470	439
2	250	787	977	858	1,110	776	1,280	1,760	1,300	1,070	460	536
3	250	526	1,050	735	1,020	841	1,500	1,920	1,270	1,010	445	457
4	250	529	1,030	670	1,000	849	1,450	1,780	1,220	970	430	400
5	250	488	1,070	625	967	789	1,420	1,580	1,260	960	420	383
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]		[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14144900 Hills Creek above Hills Creek Lake, near Oakridge, Oreg.
(Formerly published as Hills Creek above Hills Creek Reservoir)

LOCATION.--Lat 43°40'30", long 122°22'10", in [illegible] sec.8, T.22 S., R.4 E., Lane County, Willamette National Forest, on right bank 0.2 mile downstream from Tufti Creek, 0.7 mile upstream from Hills Creek Lake, 6.5 miles southeast of Oakridge, and at mile 4.1.

DRAINAGE AREA.--52.7 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,630.80 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--13 years, 148 cfs (38.14 inches per year, 107,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,350 cfs Jan. 17 (gage height, 8.89 ft, from highwater mark in well); minimum, 18 cfs Oct. 16-18.

Period of record: Maximum discharge, 10,700 cfs Dec. 22, 1964 (gage height, 12.23 ft), from rating curve extended above 1,800 cfs on basis of slope-area measurement of peak flow; minimum, 14 cfs Nov. 1, 1958.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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30	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14145100 Hills Creek Lake near Oakridge, Oreg.

(Formerly published as Hills Creek Reservoir near Oakridge)

LOCATION.--Lat 43°42'30", long 122°25'25", in NW¼ sec.35, T.21 S., R.3 E., Lane County, in Willamette National Forest, near right end of Hills Creek Dam on Middle Fork Willamette River, 600 ft downstream from Hills Creek, 3.5 miles southeast of Oakridge, and at mile 232.5.

DRAINAGE AREA.--389 sq mi.

PERIOD OF RECORD.--August 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents 354,200 acre-ft June 25 (elevation, 1,542.52 ft); minimum, 153,600 acre-ft Dec. 27 (elevation, 1,446.90 ft).

Period of record: Maximum contents, 354,200 acre-ft June 25, 1971 (elevation, 1,542.52 ft); minimum, 104,800 acre-ft Jan. 2, 1969 (elevation, 1,412.52 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete spillway completed in 1961 by the Corps of Engineers; storage began August 1961. Total capacity is 355,600 acre-ft and usable capacity is 248,900 acre-ft between elevations 1,414.0 (minimum power pool) and 1,543.0 ft (top of spillway gates). Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,410	101,300	1,460	176,900	1,520	297,200
1,420	116,600	1,480	213,000	1,540	347,300
1,440	143,900	1,500	251,100	1,544	358,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14145500 Middle Fork Willamette River above Salt Creek, near Oakridge, Oreg.

LOCATION.--Lat 43°43'20", long 122°26'15", in NW¼NE¼ sec.27, T.21 S., R.3 E., Lane County, Willamette National Forest, on right bank 90 ft upstream from highway bridge, 0.4 mile upstream from Salt Creek, 1.1 miles downstream from Hills Creek Dam, 2.3 miles southeast of Oakridge, and at mile 231.4.

DRAINAGE AREA.--392 sq mi.

PERIOD OF RECORD.--October 1913 to September 1914, September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,208.01 ft above mean sea level (levels by Corps of Engineers). Oct. 3, 1913, to Sept. 30, 1914, nonrecording gage and Sept. 1, 1935, to Aug. 18, 1960, water-stage recorder at sites 400 and 1,000 ft downstream, respectively, at different datum.

AVERAGE DISCHARGE.--37 years, 1,139 cfs (39.46 inches per year, 825,200 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,790 cfs Jan. 28 (gage height, 7.23 ft); minimum, 271 cfs Feb. 22.
Period of record: Maximum discharge, 36,000 cfs Dec. 28, 1965 (gage height, 12.06 ft, site and datum then in use), from rating curve extended above 13,000 cfs; minimum observed, 0.70 cfs Sept. 8-11, 13, 1961.

REMARKS.--Records excellent. Flow regulated since 1961 by Hills Creek Lake (see station 14145100). No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1248: 1914.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	821	3,960	1,810	6,350	706	1,340	1,340	1,030	1,370	540	1,330
2	704	831	3,940	1,800	5,030	856	1,330	1,340	1,030	1,340	535	1,350
3	703	836	3,930	1,780	5,470	742	1,330	1,350	1,420	1,320	495	1,340
4	702	836	3,920	1,240	5,820	742	1,330	1,350	1,340	1,260	474	1,330
5	701	833	3,800	868	5,140	736	1,330	1,350	1,340	1,210	474	1,340
6	700	830	3,400	810	2,400	734	1,340	1,340	1,340	1,130	474	1,370
7	699	829	4,130	716	1,140	922	1,340	1,340	1,500	1,010	470	1,410
8	704	830	4,190	719	991	832	1,660	1,350	1,620	958	512	1,390
9	708	835	4,130	1,110	1,010	935	1,830	1,340	1,620	958	493	1,390
10	707	835	4,030	1,780	1,210	960	1,870	1,330	1,620	944	467	1,390
11	738	840	3,480	1,620	1,020	824	1,820	1,330	1,620	960	992	1,380
12	713	844	3,550	1,670	856	1,580	1,560	1,330	1,670	916	1,310	1,380
13	706	843	3,540	1,930	844	1,560	1,560	1,740	1,670	844	1,320	1,380
14	702	844	3,500	2,120	802	1,080	1,580	1,780	1,620	796	1,290	1,370
15	700	844	3,270	1,900	790	1,590	1,370	1,360	1,520	788	1,320	1,380
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14146500 Salmon Creek near Oakridge, Oreg.

LOCATION.--Lat 43°45'45", long 122°17'20", in NE¼ sec.7, T.21 S., R.4 E., Lane County, Willamette National Forest, on right bank 190 ft upstream from Salmon Creek Falls, 0.1 mile upstream from Needle Creek, 4.6 miles east of Oakridge and at mile 5.84.

DRAINAGE AREA.--117 sq mi, at measuring cable 0.6 mile downstream from gage.

PERIOD OF RECORD.--October to November 1909 (gage heights and one discharge measurement only), February 1913 to October 1919, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as Kelsey River near Hazeldell and Salmon Creek near Hazeldell, 1909.

GAGE.--Water-stage recorder. Datum of gage is 1,462.36 ft above mean sea level. Prior to Oct. 1, 1914, nonrecording gage at several sites within 4 miles of present site at various datums. Oct. 1, 1914, to Oct. 14, 1919, water-stage recorder at site 1.8 miles downstream at different datum. Nov. 5, 1933, to Oct. 27, 1964, water-stage recorder at site 0.8 mile downstream at datum 40.53 ft lower. Oct. 28, 1964, to Aug. 27, 1965, nonrecording gage at site 0.6 mile downstream at different datum.

AVERAGE DISCHARGE.--44 years (1913-19, 1933-71), 420 cfs (48.75 inches per year, 304,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,020 cfs Jan. 18 (gage height, 8.84 ft); minimum, 112 cfs Oct. 17, 18.

Period of record: Maximum discharge, 11,600 cfs Dec. 22, 1964 (gage height, 9.15 ft, from floodmark, site and datum then in use), from rating curve extended above 2,100 cfs on basis of slope-area measurement of peak flow; minimum, 63 cfs Jan. 8, 1937.

REVISIONS.--The figures of maximum discharge for water years 1968 and 1969 have been revised to 3,410 cfs Feb. 23, 1968 (gage height, 5.59 ft), and 4,220 cfs Nov. 9, 1968 (gage height, 6.41 ft), superseding figures published in WSP 2135.

REMARKS.--Records good. No regulation or diversion above station. All records given herein are for measuring cable site.

REVISIONS (WATER YEARS).--WSP 794: 1934(M). WSP 814: Drainage area. WSP 1124: 1935, 1942(M), 1943, 1946(M). WSP 1248: 1915, 1918. The figures of peak discharge for water years 1968 and 1969 have been revised as shown in the following table. They supersede figures published in WSP 2135.

REVISED PEAK DISCHARGE.--1968: Feb. 23 (0600) 3,410 cfs (5.59 ft).
1969: Nov. 9 (0200) 4,220 cfs (6.41 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14146950 Waldo Lake near Oakridge, Oreg.

LOCATION.--Lat 43°46'05", long 122°03'10", in SE¼NW¼ sec.7, T.21 S., R.6 E., Lane County, Willamette National Forest, on left bank at head of artificial outlet channel for Waldo Lake, at headwaters of the North Fork of the Middle Fork Willamette River, 20 miles east of Oakridge, and at mile 43.51.

DRAINAGE AREA.--30.5 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 5,410 ft (from topographic map); gage readings have been reduced to elevations above mean sea level. Present gage is at same site and datum as former gage for Waldo Lake outlet near Oakridge (see sta 14147000) for period 1936-53.

EXTREMES.--Current year: Maximum contents observed, 778,900 acre-ft Mar. 18 (elevation, 5,413.25 ft); minimum observed, 764,800 acre-ft Oct. 13 (elevation, 5,411.01 ft).

Period of record: Maximum contents observed, 778,900 acre-ft Mar. 18, 1971 (elevation, 5,413.25 ft); minimum observed, 764,800 acre-ft Oct. 13 (elevation, 5,411.01 ft).

REMARKS.--Lake not regulated. Lake level was lowered approximately 0.5 ft when low rock dam in artificial outlet channel was removed Sept. 23, 1971. Lake outlet is an old artificial outlet channel 30 ft below the gage. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used; but leakage past old control gates was measured at 0.20 cfs July 29, 1970. The maximum stage of the lake during period 1936-53 was 5,412.98 ft which occurred Jan. 2, 1943. At times during this period the lake elevation could have been as much as two feet below elevation 5,410. A highwater mark noted Sept. 3, 1936, indicated that an elevation of 5,413.2 ft had occurred sometime previous to that date. See station 14147000 for lake elevations for period 1936-53.

COOPERATION.--Waldo Lake bathymetric chart, used to compute capacity table, furnished by Federal Water Quality Administration.

ELEVATIONS AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)
Oct. 13	5,411.01	764,800
Mar. 18	5,413.25	778,900
July 13	5,412.78	775,900
Aug. 25	5,412.00	770,900
Sept.10	5,411.80	769,700
Sept.23	5,411.53	768,000

4147000 Waldo Lake outlet near Oakridge, Oreg.

LOCATION.--Lat 43°46'05", long 122°03'10", inSE¼NW¼ sec.7, T.21 S., R.6 E., Lane County, Willamette National Forest, on right bank of artificial outlet channel of Waldo Lake foming the headwaters of the North Fork of the Middle Fork Willamette River, 20 miles east of Oakridge, and at mile 43.5.

DRAINAGE AREA.--30.5 sq mi (revised), of whic about 10.5 sq mi is Waldo Lake.

PERIOD OF RECORD.--October 1936 to September 953, October 1969 to current year.

GAGE.--Water-stage recorder, and modified v-etch weir. Altitude of gage is 5,410 ft (from topographic map). October 1936 to September 1953, at site 120 ft upstream on left banlat same datum.

AVERAGE DISCHARGE.--19 years, 32.7 cfs (23,69 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 50 cfs Jan. 20, adjusted for overbank flow; maximum gage height, 2.75 ft Jan. 20; minimum discharge, 0.55 cfs Oct. 15-21.

Period of record: Maximum discharge, 0 cfs Jan. 20, 1971,from rating curve extended above 77 cfs and adjusted for overbank flow; maximum gage height, 2.98 ft Jan. 2 1943; no flow at times.

A highwater mark in the channel of a pvious high stage in the lake was noted on Sept. 3, 1936 as 3.2 ft gage height, affected by seiche.

REMARKS.--Records good. At times seiches fr Waldo Lake caused rapid changes in stage at gage many times each hour. No regulation, however, outflow increased as much as 34 s for many days after low rock dam at mouth of lake outlet channel was removed Sept. 23, 1971. Diversion tunnel into head of Blac Creek, near south end of lake, built about 1914, is sealed off, but there is leakage of about 0.41 cfs past control gates, measur Sept. 23, 1971.

DISCHARGE, IN CUBI(FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.3	42	55	108	110	92	57	69	72	40	16
2	.96	1.2	46	54	105	107	89	57	68	71	39	19
3	.96	1.1	52	51	102	109	87	55	67	71	38	19
4	.96	1.1	56	50	107	116	84	55	66	70	36	18
5	.96	1.2	56	49	108	115	81	55	65	69	35	18
6	.96	1.5	53	48	103	111	79	55	64	68	34	17
7	.96	1.5	56	46	100	109	78	55	63	67	33	17
8	.88	1.7	56	44	97	105	76	60	63	65	32	16
9	.88	2.0	56	54	93	102	76	60	63	64	31	16
10	.83	2.0	56	58	90	101	78	59	63	64	30	15
11	[illegible]	[illegible]	[illegible]	63	[illegible]	102	78	59	63	64	29	15
12	[illegible]	[illegible]	[illegible]	66	91	106	77	60	63	65	28	15
13	.76	[illegible]	[illegible]	67	89	110	75	62	63	62	27	14
14	[illegible]	[illegible]	[illegible]	[illegible]	88	109	73	61	[illegible]	61	26	14
15	[illegible]	[illegible]	[illegible]	78	91	109	71	[illegible]	[illegible]	60	25	13
16	[illegible]	[illegible]	[illegible]	84	[illegible]	106	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	111	[illegible]	103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14147500 North Fork of Middle Fork Willamette River near Oakridge, Oreg.

LOCATION.--Lat 43°45'30", long 122°30", in SW¼ sec.7, T.21 S., R.3 E., Lane County, on left bank 2.5 miles northwest of Oakridge and at mile 1.0.

DRAINAGE AREA.--246 sq mi, at measuring section 0.5 mile downstream.

PERIOD OF RECORD.--October 1909 to March 1916, September 1935 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1912, published as "near Hazeldell."

GAGE.--Water-stage recorder. Datum of gage is 1,029.6 ft above mean sea level (river profile survey). Oct. 1, 1909, to Mar. 31, 1916, water-stage recorder or nonrecording gage at several sites within three-quarters of a mile of present site at various datums. Sept. 10, 1935, to Oct. 3, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--42 years (1909-15, 1935-71), 786 cfs (43.39 inches per year, 569,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,900 cfs Jan. 18 (gage height, 14.24 ft); minimum, 92 cfs Oct. 15.
Period of record: Maximum discharge, 24,400 cfs Dec. 22, 1964 (gage height, 19.14 ft, from floodmark), from rating curve extended above 7,100 cfs on basis of slope-area measurement of peak flow; minimum, 22 cfs Aug. 20, 1966.

REMARKS.--Records good. Slight natural regulation by Waldo Lake; occasional fluctuations during low-water periods caused by logponds above station. No diversions above station. All records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 1248: 1914-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	322	1,110	944	1,390	955	1,540	1,300	1,130	690	269	266
2	114	328	1,010	772	1,350	905	1,450	1,420	1,020	660	260	390
3	112	323	1,030	716	1,230	930	1,390	1,680	935	630	254	318
4	113	310	1,020	615	1,220	920	1,390	1,800	905	595	251	251
5	116	347	976	961	1,160	865	1,510	1,670	905	570	248	237
6	132	371	1,200	928	1,103	890	1,700	1,470	945	540	245	226
7	139	367	1,720	497	1,020	840	1,670	1,440	1,000	522	242	215
8	123	926	1,690	763	960	860	1,910	1,730	980	506	236	206
9	119	729	1,400	1,943	992	855	1,810	1,746	965	498	230	200
10	127	609	1,230	2,490	1,790	995	1,620	1,610	970	494	227	194
11	123	904	1,370	1,920	1,880	1,310	1,490	1,650	986	478	221	191
12	119	1,650	1,200	1,490	1,820	1,610	1,400	1,930	930	458	218	188
13	117	1,140	1,180	1,250	1,770	1,440	1,350	2,280	960	442	218	185
14	113	867	1,040	1,110	1,790	1,320	1,350	1,800	965	426	219	182
15	108	690	1,170	1,900	2,010	1,190	1,360	1,960	910	422	213	179
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
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14148000 Middle Fork Willamette River below North Fork, near Oakridge, Oreg.

LOCATION.--Lat 43°48'05", long 122°33'35", in SW¼ sec.27, T.20 S., R.2 E., Lane County, on left bank 0.5 mile downstream from Whitehead Creek, 4.2 miles downstream from North Fork of Middle Fork Willamette River, 7.0 miles northwest of Oakridge, and at mile 220.2.

DRAINAGE AREA.--924 sq mi.

PERIOD OF RECORD.--March 1911 to September 1912, July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near Hazeldell" 1911-12 and as "at Eula" 1923-50.

GAGE.--Water-stage recorder. Datum of gage is 934.76 ft above mean sea level. Mar. 22, 1911, to Sept. 30, 1912, nonrecording gage at site 4 miles upstream, just below North Fork, at different datum. July 1, 1923, to Aug. 11, 1935, nonrecording gage and Aug. 12, 1935, to Sept. 30, 1950, water-stage recorder at site 4 miles downstream at different datum.

AVERAGE DISCHARGE.--49 years, 2,737 cfs (1,983,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 36,700 cfs Jan. 18 (gage height, 9.82 ft); minimum, 1,040 cfs Oct. 2, 8, 15-17.
Period of record: Maximum discharge, 81,800 cfs Dec. 28, 1945 (gage height, 18.8 ft, from floodmark, site and datum then in use), from rating curve extended above 39,000 cfs; minimum, 322 cfs Aug. 30, 1961, caused by closing outlet gates at Hills Creek Dam.
Maximum stage since 1861 and prior to beginning of record, 17.0 ft in February 1890 at site used 1923-50, from information by local resident (discharge, about 55,000 cfs).

REMARKS.--Records good. Flow regulated since 1961 by Hills Creek Lake (see station 14145100); slight regulation at times by logponds above station. No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 694: 1925-28. WSP 814: Drainage area at Eula. WSP 1248: 1924, 1925(M), 1926-28, 1929(M), 1930, 1933, 1946(M). WSP 1390: 1927(M). WSP 1636: 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14149000 Lookout Point Lake near Lowell, Oreg.
(Formerly published as Lookout Point Reservoir near Lowell)

LOCATION.--Lat 43°54'50", long 122°45'00", SE¼ sec.13, T.19 S., R.1 W., Lane County, in elevator house at right end of spillway section of dam on Middle Fork Willamette River, 1.5 miles east of Lowell, and at mile 206.9.

DRAINAGE AREA.--991 sq mi.

PERIOD OF RECORD.--November 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Nov. 7, 1953 to Dec. 4, 1954, approximate elevations obtained from reference marks and Dec. 5, 1954 to Feb. 4, 1955, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents during year 445,200 acre-ft July 21 (elevation, 926.53 ft); minimum, 1[illegible],200 acre-ft Jan. 7 (elevation, 823.77 ft).
Period of record: Maximum contents, 464,900 acre-ft Dec. 26, 1964 (elevation, 931.09 ft); minimum observed since first filling, 91,450 acre-ft Dec. 1, 1954 (elevation, 811.00 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete gate and spillway section, completed in 1954 by Corps of Engineers. Planned storage began in November 1953. Total capacity is 455,800 acre-ft and usable capacity is 349,200 acre-ft between elevations 819 (proposed lower limit of operation) and 929 ft (top of spillway gates). Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

820	108,600	860	205,500	900	338,900
830	120,500	870	235,500	910	377,400
840	132,500	880	267,800	920	417,800
850	[illegible]	890	302,300	930	460,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	———	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	———	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	———	[illegible]	[illegible]	———	[illegible]	———	[illegible]	———	[illegible]	[illegible]	———
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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14150000 Middle Fork Willamette River near Dexter, Oreg.

LOCATION.--Lat 43°56'45", long 122°50'10", in SE¼NW¼ sec.5, T.19 S., R.1 W., Lane County, on right bank 0.6 mile upstream from Lost Creek, 2 miles northwest of Dexter, 2.6 miles downstream from Dexter Dam, and at mile 201.2.

DRAINAGE AREA.--1,001 sq mi.

PERIOD OF RECORD.--October 1946 to September 1954 (published as "at Lowell"), June 1955 to current year. Monthly discharge only for October 1954 to June 1955, published in WSP 1738.

GAGE.--Water-stage recorder. Datum of gage is 595.30 ft above mean sea level (levels by Corps of Engineers). Prior to Aug. 23, 1950, nonrecording gage and Aug. 23, 1950, to Sept. 30, 1954, at site 4.0 miles upstream at different datum.

AVERAGE DISCHARGE.--25 years, 3,199 cfs (2,318,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,800 cfs Jan. 26, 27 (gage height, 7.69 ft); minimum daily, 550 cfs Jan. 19.

Period of record: Maximum discharge, 62,600 cfs Jan. 18, 1953 (gage height, 12.46 ft, site and datum then in use), from rating curve extended above 33,000 cfs; minimum daily, 100 cfs Nov. 25, 1960.

Maximum stage, 13.9 ft Dec. 28, 1945 (former site and datum).

REMARKS.--Records good. Flow regulated since 1953 by Lookout Point Lake (see station 14149000) and since 1961, by Hills Creek Lake (see station 14145100). Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1638: 1948(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,440	3,790	9,060	4,010	12,900	2,320	2,960	3,320	4,790	3,260	1,300	4,110
2	3,740	3,800	9,060	3,960	12,900	4,030	2,960	3,450	4,490	2,670	1,330	4,090
3	3,560	3,400	9,060	3,980	12,900	3,360	3,080	3,640	4,140	2,090	1,350	4,080
4	3,470	3,050	8,960	4,000	12,800	2,350	3,080	3,610	3,630	2,050	1,350	2,640
5	3,400	3,210	8,910	3,420	12,900	2,610	3,080	3,930	3,390	2,080	1,350	2,560
6	3,500	3,560	8,880	3,100	12,900	2,460	2,960	3,980	3,340	2,090	1,310	2,560
7	3,680	3,360	8,830	3,150	12,800	2,470	3,130	4,060	3,900	1,690	1,290	2,560
8	3,660	3,480	8,860	2,090	10,400	2,460	4,080	4,030	4,000	1,570	1,210	2,910
9	2,750	3,440	8,760	1,900	8,710	1,450	4,590	4,030	3,950	1,690	1,310	3,870
10	2,810	3,560	8,660	1,820	8,360	1,360	4,670	4,060	3,960	1,880	1,250	3,960
11	2,910	3,690	8,520	3,050	5,200	1,390	4,440	4,140	3,950	1,770	1,410	4,000
12	2,910	4,170	8,540	5,460	4,560	2,780	4,270	4,140	3,950	1,760	2,370	4,090
13	2,920	4,510	8,460	6,640	4,600	2,830	2,860	4,120	3,960	1,740	2,420	4,090
14	2,910	3,740	8,360	7,880	4,560	2,830	2,840	4,060	4,170	1,690	2,430	4,120
15	2,910	4,010	8,260	6,210	4,790	2,800	2,970	2,540	4,010	1,590	2,400	4,110
16	2,960	4,040	8,260	2,090	4,080	3,120	2,780	2,430	3,150	1,600	2,370	4,110
17	2,990	4,480	6,160	720	1,690	3,520	3,370	2,420	3,100	1,680	2,370	1,860
18	3,000	5,850	4,380	714	1,420	2,090	3,210	2,420	3,310	1,680	2,370	1,420
19	3,000	5,980	3,630	550	1,200	1,900	3,100	3,470	3,180	1,680	2,370	1,240
20	3,100	6,280	4,200	1,500	1,200	1,550	2,780	3,640	3,040	1,640	2,360	1,280
21	3,240	6,430	4,220	7,460	1,200	1,420	2,800	3,740	4,170	1,650	2,600	1,310
22	3,050	6,500	2,990	11,300	1,200	1,430	2,770	1,330	5,190	1,660	2,540	1,360
23	3,690	7,280	2,970	11,800	1,200	2,710	2,770	1,310	4,620	1,630	2,540	2,560
24	3,790	4,400	1,950	11,800	1,210	5,620	2,780	1,980	4,830	1,470	2,420	3,850
25	3,640	4,400	1,900	11,800	1,230	8,100	2,810	3,740	5,110	1,410	3,160	4,010
26	3,580	9,430	1,870	13,200	1,250	8,400	4,300	4,700	6,800	1,410	4,060	3,950
27	3,790	7,420	1,820	14,300	1,250	7,780	4,650	5,550	4,490	1,400	4,090	3,960
28	3,790	6,960	1,810	12,900	1,240	5,580	4,030	5,980	3,790	1,390	4,110	3,960
29	3,820	9,210	2,140	12,900	------	4,900	3,880	6,340	3,800	1,360	4,110	3,960
30	3,680	9,060	2,720	12,900	------	4,880	3,800	5,240	3,720	1,300	4,110	4,010
31	3,720	------	4,000	12,900	------	3,340	------	4,860	------	1,300	4,120	------
TOTAL	103,410	152,490	186,200	199,504	160,650	103,840	101,800	116,260	121,930	53,880	73,780	96,590
MEAN	3,336	5,083	6,006	6,436	5,738	3,350	3,393	3,750	4,064	1,738	2,380	3,220
MAX	3,820	9,430	9,060	14,300	12,900	8,400	4,670	6,340	6,800	3,260	4,120	4,120
MIN	2,750	3,050	1,810	550	1,200	1,360	2,770	1,310	3,040	1,300	1,210	1,240
AC-FT	205,100	302,500	369,300	395,700	318,600	206,000	201,900	230,600	241,800	106,900	146,300	191,600

CAL YR 1970 TOTAL 1,152,014 MEAN 3,156 MAX 12,300 MIN 964 AC-FT 2,285,000
WTR YR 1971 TOTAL 1,470,334 MEAN 4,028 MAX 14,300 MIN 550 AC-FT 2,916,000

14150300 Fall Creek near Lowell, Oreg.

LOCATION.--Lat 43°58'15", long 122°38'15", in SW¼ sec.25, T.18 S., R.1 E., Lane County, on right bank 0.1 mile downstream from North Fork, 8.0 miles northeast of Lowell, and at mile 14.4.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.42 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 404 cfs (46.49 inches per year, 292,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,000 cfs Jan. 18 (gage height, 10.80 ft); minimum, 27 cfs Oct. 4.
Period of record: Maximum discharge, 11,200 cfs Dec. 22, 1964 (gage height, 11.39 ft); minimum, 16 cfs Oct. 3, 4, 1965.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	117	572	915	578	444	816	396	570	143	55	121
2	29	100	524	604	513	408	711	408	456	133	50	312
3	28	88	770	452	445	536	637	433	376	123	49	176
4	28	86	842	368	500	575	611	420	326	117	48	96
5	33	102	765	314	608	485	659	383	290	108	47	71
6	47	104	946	280	579	460	662	332	266	104	47	78
7	48	102	1,270	255	504	638	571	322	251	98	46	67
8	38	203	945	792	460	733	502	336	227	94	45	57
9	35	356	688	2,640	440	666	733	307	212	100	43	53
10	41	284	560	2,610	1,030	962	786	289	212	102	42	49
11	37	600	674	1,540	862	1,720	685	294	191	92	42	49
12	34	1,060	555	958	709	2,190	674	330	179	86	41	47
13	32	530	466	699	615	1,450	616	446	188	83	41	45
14	31	344	480	583	586	1,140	563	317	191	80	41	44
15	29	257	754	1,240	860	987	521	293	164	78	40	42
16	28	340	1,200	2,800	795	814	478	430	150	74	39	41
17	28	333	831	6,290	653	670	463	411	143	71	38	39
18	35	305	596	7,280	617	585	483	359	191	70	38	37
19	47	352	459	5,020	642	567	446	339	176	68	37	37
20	100	326	399	3,320	566	626	475	317	150	65	37	37
21	158	357	341	1,850	517	744	481	290	138	63	37	37
22	215	314	291	1,240	540	1,500	481	268	130	61	76	36
23	505	1,140	257	1,310	613	2,590	512	263	126	60	54	35
24	615	3,220	233	1,440	928	2,280	518	260	121	58	43	35
25	600	1,680	215	1,370	1,040	1,740	528	263	492	57	40	65
26	444	993	203	1,170	746	1,740	554	715	348	56	39	140
27	293	1,650	196	928	628	1,300	510	505	248	54	38	96
28	224	1,070	235	788	528	1,090	446	400	206	54	40	212
29	194	727	418	683	------	995	406	340	176	53	37	472
30	164	642	679	622	------	1,070	383	333	155	53	38	266
31	138	------	1,690	631	------	974	------	337	------	53	63	------
TOTAL	4,308	17,782	19,054	50,992	18,102	32,679	16,911	11,136	7,049	2,511	1,371	2,892
MEAN	139	593	615	1,645	647	1,054	564	359	235	81.0	44.2	96.4
MAX	615	3,220	1,690	7,280	1,040	2,590	816	715	570	143	76	472
MIN	28	86	196	255	440	408	383	260	121	53	37	35
CFSM	1.18	5.03	5.21	13.9	5.48	8.93	4.78	3.04	1.99	.69	.37	.82
IN.	1.36	5.61	6.01	16.08	5.71	10.30	5.33	3.51	2.22	.79	.43	.91
AC-FT	8,540	35,270	37,790	101,100	35,910	64,820	33,540	22,090	13,980	4,980	2,720	5,740

CAL YR 1970 TOTAL 147,408 MEAN 404 MAX 3,780 MIN 21 CFSM 3.42 IN 46.47 AC-FT 292,400
WTR YR 1971 TOTAL 184,787 MEAN 506 MAX 7,280 MIN 28 CFSM 4.29 IN 58.25 AC-FT 366,500

PEAK DISCHARGE (BASE, 3,500 CFS).--Nov. 24 (1330) 4,100 cfs (7.00 ft); Jan. 18 (0300) 10,000 cfs (10.80 ft).

14150800 Winberry Creek near Lowell, Oreg.

LOCATION.--Lat 43°54'50", long 122°41'15", in NE¼SE¼ sec.16, T.19 S., R.1 E., Lane County, on right bank 0.9 mile upstream from Nelson Creek, 4.6 miles east of Lowell, and at mile 4.4.

DRAINAGE AREA.--43.9 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 863.70 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--8 years, 118 cfs (36.50 inches per year, 85,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,170 cfs Jan. 18 (gage height, 6.87 ft); minimum, 6.2 cfs Sept. 20.
Period of record: Maximum discharge, 4,500 cfs Dec. 22, 1964 (gage height, 8.07 ft); minimum, 1.5 cfs Sept. 4, 5, 8-10, 1967.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	43	170	365	145	123	242	148	295	40	13	18
2	7.2	38	190	200	133	113	215	155	242	37	12	49
3	6.9	32	218	143	113	160	195	170	188	34	11	36
4	6.5	31	254	109	168	180	188	165	155	31	11	20
5	7.5	34	218	91	215	155	206	158	128	30	11	15
6	13	31	254	79	190	145	209	133	113	28	10	23
7	12	30	313	70	160	203	178	130	103	26	11	18
8	8.9	39	254	316	140	257	150	138	91	25	9.8	14
9	8.2	73	200	886	128	239	185	123	84	27	9.4	12
10	12	70	163	710	227	316	193	117	81	26	8.9	11
11	10	138	183	453	206	539	173	123	71	24	8.9	11
12	11	271	158	302	185	645	180	145	67	23	8.6	11
13	8.2	155	135	218	165	429	170	170	67	21	8.2	9.4
14	7.9	103	125	178	153	334	163	138	67	20	8.2	8.9
15	7.2	77	158	457	180	281	158	125	57	19	8.2	8.9
16	6.9	92	299	1,070	168	230	143	123	53	18	7.9	8.6
17	6.9	87	245	2,080	148	183	133	113	49	17	8.2	7.9
18	8.2	89	175	2,270	148	155	150	105	57	17	7.9	7.2
19	11	111	133	1,530	168	150	145	115	51	17	7.5	6.9
20	18	111	111	1,060	163	170	165	113	46	16	7.5	6.5
21	28	119	94	544	160	212	180	103	42	15	7.5	6.9
22	37	107	79	351	173	413	193	96	39	15	21	6.9
23	74	271	68	369	212	800	206	98	38	14	13	6.5
24	145	720	66	405	251	650	212	100	36	13	9.4	6.9
25	173	469	55	348	271	500	274	105	117	13	8.6	11
26	128	306	51	299	221	500	233	381	92	13	7.9	24
27	77	477	49	248	185	380	215	281	70	13	8.6	21
28	63	320	49	212	155	320	180	212	58	13	8.6	37
29	57	215	98	180	------	281	155	175	51	13	7.9	85
30	53	185	170	160	------	299	140	160	45	12	7.5	52
31	49	------	640	158	------	274	------	168	------	12	12	------
TOTAL	1,068.7	4,844	5,369	15,861	4,931	9,636	5,479	4,586	2,653	642	300.2	559.5
MEAN	34.5	161	173	512	176	311	183	148	88.4	20.7	9.68	18.7
MAX	173	720	640	2,270	271	800	242	381	295	40	21	85
MIN	6.5	30	49	70	113	113	133	96	36	12	7.5	6.5
CFSM	.79	3.67	3.94	11.7	4.01	7.08	4.17	3.37	2.01	.47	.22	.43
IN.	.91	4.10	4.55	13.44	4.18	8.17	4.64	3.89	2.25	.54	.25	.47
AC-FT	2,120	9,610	10,650	31,460	9,780	19,110	10,870	9,100	5,260	1,270	595	1,110

CAL YR 1970 TOTAL 42,049.5 MEAN 115 MAX 1,310 MIN 2.8 CFSM 2.62 IN 35.63 AC-FT 83,410
WTR YR 1971 TOTAL 55,929.4 MEAN 153 MAX 2,270 MIN 6.5 CFSM 3.49 IN 47.39 AC-FT 110,900

PEAK DISCHARGE (BASE, 1,000 CFS).--Jan. 9 (1130) 1,010 cfs (4.03 ft); Jan. 18 (0430) 3,170 cfs (6.87 ft).

14150900 Fall Creek Lake near Lowell, Oreg.
(Formerly published as Fall Creek Reservoir near Lowell)

LOCATION.--Lat 43°56'40", long 122°45'20", in SW¼ sec.1, T.19 S., R.1 W., Lane County, in regulating tower near the center of Fall Creek Dam on Fall Creek, 2.2 miles northeast of Lowell, and at mile 7.2.

DRAINAGE AREA.--184 sq mi.

PERIOD OF RECORD.--January 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 122,300 acre-ft June 15 (elevation, 832.47 ft); minimum, no contents Nov. 14-16.
Period of record: Maximum contents, 122,700 acre-ft May 31 to June 5, 1970; maximum elevation, 832.71 ft June 2, 1970; minimum, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970.

REMARKS.--Reservoir is formed by earth-fill dam with concrete gate and spillway section, completed in 1965 by Corps of Engineers; storage began January 1966. Total capacity is 125,100 acre-ft and usable capacity is 115,500 acre-ft between elevation 728 (proposed lower limit of operation) and 834 ft. Reservoir used for flood control, conservation and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

670.4	0	725	8,340	785	53,120
679	59	735	13,270	795	64,590
685	366	745	19,480	805	77,880
695	1,400	755	26,130	815	97,750
705	2,850	765	33,770	825	109,200
715	5,200	775	42,580	833	123,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,770	14,080	9,130	9,240	44,860	52,700	79,810	105,000	119,300	119,400	90,220	43,470
2	15,530	11,940	9,090	9,570	39,000	53,450	80,960	106,000	119,400	119,200	88,430	43,260
3	15,300	9,790	9,050	9,670	35,180	54,190	82,090	107,100	119,800	119,000	86,660	42,700
4	15,080	7,860	8,260	9,530	33,090	54,730	83,200	108,200	120,100	118,800	84,820	41,870
5	14,860	6,240	7,820	9,520	32,200	54,930	84,280	109,100	120,400	118,600	82,920	41,000
6	14,690	4,540	6,690	9,640	31,710	54,890	85,330	110,000	120,600	118,500	81,150	40,160
7	14,530	2,770	6,660	9,650	30,920	55,070	86,140	110,600	120,700	118,400	79,400	39,320
8	14,320	2,030	6,480	11,140	30,510	55,580	86,770	111,500	121,000	118,400	77,640	38,440
9	14,130	611	6,260	17,720	31,210	56,310	87,600	112,100	121,200	118,400	75,880	37,350
10	13,940	251	6,270	23,520	32,740	57,310	87,670	112,800	121,400	118,400	74,080	36,930
11	13,730	319	6,380	24,190	33,610	59,970	87,990	113,600	121,700	118,400	72,270	36,530
12	13,520	102	6,280	21,390	34,430	63,910	88,720	114,200	121,800	118,400	70,450	36,120
13	13,310	9	6,350	17,620	35,370	65,430	89,800	115,200	122,000	118,400	68,670	35,700
14	13,090	0	6,460	12,110	36,240	65,940	90,910	115,800	122,100	118,100	66,900	35,280
15	12,870	0	6,830	13,260	37,110	66,990	92,970	116,200	122,200	117,300	65,170	34,850
16	12,640	0	7,210	21,810	37,990	67,030	92,910	117,000	121,100	116,200	63,440	34,440
17	12,430	2	5,880	39,470	39,210	67,280	93,770	117,800	120,700	114,900	61,750	33,980
18	12,240	11	4,920	61,010	40,760	68,300	94,470	118,300	120,700	113,600	60,070	33,540
19	12,080	17	4,920	75,780	43,100	69,300	95,180	118,800	120,600	112,200	58,350	33,100
20	12,050	17	4,900	85,330	44,590	70,320	96,110	118,800	120,500	110,900	56,660	32,660
21	12,190	10	4,940	87,130	45,970	71,380	97,040	118,700	120,400	109,500	54,980	32,200
22	12,470	24	4,960	82,380	47,530	72,940	97,980	118,900	120,200	108,000	53,360	31,760
23	13,390	602	4,840	77,750	49,390	77,040	98,640	119,300	120,000	106,400	51,990	31,350
24	14,850	6,060	4,860	72,790	51,850	77,060	99,360	119,400	119,900	104,700	50,980	30,900
25	16,400	8,700	4,820	67,630	53,890	75,950	100,000	119,500	119,900	102,900	50,000	30,590
26	17,440	8,940	4,840	64,400	53,880	75,900	100,900	119,500	119,700	101,100	49,010	30,440
27	18,000	10,410	4,870	62,160	53,010	76,310	101,600	119,100	119,800	99,230	48,040	30,200
28	18,320	10,510	4,910	59,290	52,460	76,980	102,300	119,100	119,800	97,360	46,970	30,070
29	18,570	9,620	5,030	56,110	------	77,430	103,200	119,100	119,600	95,570	45,970	30,430
30	18,320	9,200	5,620	52,570	------	78,130	104,100	119,000	119,500	93,790	45,020	30,190
31	16,260	------	8,440	48,650	------	78,900	------	119,200	------	91,990	44,190	------
MAX	18,570	14,080	9,130	87,130	53,890	78,900	104,100	119,500	122,200	119,400	90,220	43,470
MIN	12,050	0	4,820	9,240	30,510	52,700	79,810	105,000	119,300	91,990	44,190	30,070
(†)	739.96	727.05	725.25	780.90	784.40	805.72	821.98	830.75	830.93	814.51	776.64	760.49
(‡)	+270	-7,060	-760	+40,210	+3,810	+26,440	+25,200	+15,100	+300	-27,510	-47,800	-14,000

CAL YR 1970 MAX 122,700 MIN 0 AC-FT ‡ -1,140
WTR YR 1971 MAX 122,200 MIN 0 AC-FT ‡ +14,200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14151000 Fall Creek below Winberry Creek, near Fall Creek, Oreg.

LOCATION.--Lat 43°56'40", long 122°46'25", in NW¼SE¼ sec.2, T.19 S., R.1 W., Lake County, on left bank 10 ft upstream from highway bridge, 1.1 miles downstream from Fall Creek Dam, 2.3 miles southeast of town of Fall Creek, and at mile 6.1.

DRAINAGE AREA.--186 sq mi.

PERIOD OF RECORD.--October to December 1911 (published as Big Fall Creek near Fall Creek; gage heights and discharge measurements only), September 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is 637.81 ft above mean sea level (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mile downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--36 years, 580 cfs 42.35 inches per year, 420,200 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 4,580 cfs Jan. 26 (gage height, 8.07 ft); minimum, 40 cfs Feb. 22.
Period of record: Maximum discharge, 24,700 cfs Dec. 11, 1956 (gage height, 18.80 ft), from rating curve extended above 9,700 cfs; minimum, 1.5 cfs Oct. 7, 8, 1965.

REMARKS.--Records excellent. Flow regulated since 1966 by Fall Creek Lake (see station 14150900), No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1094: 1946(M). WSP 1248: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	1,180	890	1,100	2,520	450	700	80	790	237	938	486
2	140	1,170	860	820	3,160	209	406	80	705	237	938	482
3	140	1,170	1,150	660	2,480	462	300	80	374	237	932	482
4	140	1,180	1,720	635	1,860	645	300	82	318	237	926	498
5	140	1,150	1,690	462	1,360	685	360	82	300	221	926	498
6	140	1,190	1,710	360	1,070	725	390	80	248	188	926	494
7	140	1,150	1,740	367	1,090	825	390	80	248	170	920	490
8	138	1,080	1,450	514	836	842	390	82	203	130	914	490
9	138	986	1,130	760	283	680	565	82	173	111	914	494
10	138	418	790	775	545	715	1,010	84	173	111	932	356
11	138	765	872	1,970	690	1,130	730	84	168	111	932	258
12	138	1,480	848	3,010	514	1,350	530	84	165	111	926	251
13	138	800	625	2,990	353	1,620	304	138	165	111	926	251
14	138	506	605	3,530	335	1,280	191	173	165	212	914	251
15	138	378	820	1,470	685	1,100	191	173	194	434	908	251
16	135	446	1,530	65	590	1,180	218	173	730	655	902	251
17	135	466	2,140	86	265	650	237	173	367	740	890	251
18	135	422	1,520	88	98	286	310	168	283	740	884	251
19	135	486	675	80	100	279	286	234	258	740	896	251
20	135	466	600	58	100	349	290	446	237	740	902	248
21	135	502	478	2,220	100	474	293	414	237	740	890	241
22	138	454	410	4,510	80	715	293	194	237	800	884	248
23	138	1,310	430	4,380	60	2,060	462	170	237	836	730	248
24	140	1,040	318	4,500	60	3,300	482	279	237	908	502	248
25	145	872	325	4,510	560	2,740	466	363	635	950	498	248
26	145	1,400	265	3,290	1,140	2,360	466	1,100	535	950	498	248
27	148	1,660	265	2,520	1,330	1,590	458	992	297	950	498	248
28	148	1,540	314	2,540	998	1,130	282	615	237	950	490	321
29	148	1,520	590	2,510	-------	1,110	162	535	237	950	490	422
30	370	1,150	795	2,490	-------	1,110	109	506	237	944	490	438
31	1,170	-------	1,090	2,510	-------	910	-------	506	-------	938	490	-------
TOTAL	5,584	28,337	28,645	55,780	23,262	32,961	11,571	8,332	9,390	16,389	24,806	10,194
MEAN	180	945	924	1,799	831	1,063	386	269	313	529	800	340
MAX	1,170	1,660	2,140	4,510	3,160	3,300	1,010	1,100	790	950	938	498
MIN	135	378	265	58	60	209	109	80	165	111	490	241
AC-FT	11,080	56,210	56,820	110,600	46,140	65,380	22,950	16,530	18,630	32,510	49,200	20,220
MEAN†	185	826	912	2,453	899	1,493	809	514	318	81.3	22.8	105
CFSM†	0.99	4.44	4.90	13.19	4.83	8.03	4.35	2.76	1.71	0.44	0.12	0.56
IN.†	1.14	4.96	5.65	15.21	5.04	9.26	4.86	3.19	1.91	0.50	0.14	0.63
AC-FT†	11,350	49,150	56,060	150,810	49,950	91,820	48,150	31,630	18,930	5,000	1,400	6,220

CAL YR 1970 TOTAL 216,287 MEAN 593 MAX 3,680 MIN 37 AC-FT 429,000 MEAN† 591 CFSM† 3.18 IN.† 43.14 AC-FT† 427,860
WTR YR 1971 TOTAL 255,251 MEAN 699 MAX 4,510 MIN 58 AC-FT 506,300 MEAN† 719 CFSM† 3.87 IN.† 52.48 AC-FT† 520,500

† Adjusted for change in contents of Fall Creek Lake.

14152000 Middle Fork Willamette River at Jasper, Oreg.

LOCATION.--Lat 43°59'55", long 122°54'20", in SW¼SW¼ sec.14, T.18 S., R.2 W., Lane County, on right bank 25 ft downstream from highway bridge at Jasper, 0.1 mile downstream from Hills Creek, and at mile 195.0.

DRAINAGE AREA.--1,340 sq mi.

PERIOD OF RECORD.--September 1905 to February 1912, July 1913 to March 1917, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 513.45 ft above mean sea level. September 1905 to February 1912 and July 1913 to March 1917, nonrecording gage at approximately same site at datum about 1.5 ft higher. Oct. 22, 1952, to Sept. 30, 1953, nonrecording gage at site 25 ft upstream at same datum.

AVERAGE DISCHARGE.--28 years (1905-11, 1913-16, 1952-71), 4,062 cfs (2,943,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,200 cfs Jan. 26 (gage height, 9.31 ft); minimum, 1,450 cfs Sept. 20.
Period of record: Maximum discharge, 94,000 cfs Nov. 23, 1909 (gage height, 17.4 ft, datum then in use, from graph based on gage readings), from rating curve extended above 42,000 cfs; minimum, 366 cfs Dec. 5, 1954.

REMARKS.--Records excellent. Flow regulated since 1953 by Lookout Point Lake (see station 14149000), since 1961 by Hills Creek Lake (see station 14145100) and since 1966 by Fall Creek Lake (see station 14150900). Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1288: 1907-08, 1910-12, 1914-16, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,670	5,240	10,700	6,420	17,000	3,450	4,700	3,880	5,700	3,680	2,380	4,750
2	3,960	5,240	10,700	5,700	17,600	4,770	4,340	3,920	5,410	3,160	2,400	4,800
3	3,830	4,870	11,200	5,310	16,800	4,850	4,180	4,090	4,820	2,600	2,420	4,740
4	3,720	4,540	12,000	5,190	16,300	4,290	4,120	4,050	4,210	2,520	2,420	3,490
5	3,640	4,700	11,600	4,430	16,000	4,310	4,130	4,340	3,950	2,520	2,420	3,310
6	3,750	5,080	11,600	3,990	15,400	4,190	4,040	4,350	3,830	2,490	2,380	3,310
7	3,930	4,850	11,700	3,960	15,200	4,350	4,120	4,410	4,310	2,080	2,340	3,300
8	3,900	4,960	11,300	3,630	12,200	4,450	4,850	4,380	4,390	1,870	2,270	3,570
9	3,130	5,090	10,500	4,600	9,220	3,300	5,850	4,350	4,290	1,940	2,360	4,400
10	3,130	4,620	9,920	5,010	9,150	3,380	6,580	4,360	4,310	2,180	2,310	4,470
11	3,240	5,190	9,810	6,420	6,420	4,510	6,010	4,420	4,300	2,070	2,440	4,380
12	3,220	6,500	9,770	9,470	5,490	6,550	5,540	4,430	4,280	2,030	3,470	4,460
13	3,240	5,740	9,360	10,400	5,340	6,210	4,180	4,500	4,300	2,010	3,540	4,460
14	3,230	4,630	9,240	12,300	5,260	5,650	3,810	4,440	4,470	2,020	3,560	4,490
15	3,220	4,710	9,780	10,800	5,980	5,240	3,860	3,150	4,330	2,150	3,540	4,470
16	3,280	4,790	12,200	5,200	5,500	5,340	3,720	3,050	4,020	2,420	3,510	4,470
17	3,330	5,040	9,760	6,260	2,920	5,140	4,180	3,010	3,690	2,620	3,500	2,470
18	3,350	6,010	6,830	7,340	2,410	3,530	4,210	2,960	3,800	2,640	3,490	1,840
19	3,380	6,170	5,040	6,070	2,190	3,140	4,040	3,840	3,660	2,630	3,490	1,630
20	3,470	6,410	5,350	5,320	2,090	2,790	3,850	4,290	3,490	2,580	3,480	1,640
21	3,620	6,560	5,200	11,400	2,010	2,730	3,890	4,390	4,430	2,590	3,680	1,680
22	3,530	6,660	3,980	18,300	2,020	3,370	3,820	1,930	5,280	2,660	3,660	1,730
23	4,150	8,530	3,880	18,900	2,090	6,560	3,980	1,700	4,860	2,670	3,540	2,880
24	4,460	8,440	2,860	18,800	2,200	10,600	4,040	2,410	5,010	2,560	3,140	4,170
25	4,390	6,020	2,740	18,600	2,870	12,600	4,030	4,220	5,700	2,520	3,720	4,420
26	4,220	12,000	2,620	19,000	3,430	12,700	5,120	5,790	7,230	2,520	4,620	4,390
27	4,330	11,500	2,550	19,500	3,640	10,800	5,470	6,540	4,950	2,520	4,670	4,390
28	4,300	9,510	2,680	17,300	3,230	7,790	4,820	6,440	4,230	2,510	4,690	4,500
29	4,290	11,700	3,800	17,100	------	6,830	4,480	6,650	4,190	2,470	4,680	4,800
30	4,270	11,000	4,720	17,100	------	6,930	4,350	5,760	4,130	2,390	4,690	4,720
31	5,140	------	7,560	17,000	------	5,490	------	5,380	------	2,390	4,720	------
TOTAL	116,320	196,230	240,950	320,820	209,960	175,840	134,310	131,430	135,570	76,010	103,530	112,130
MEAN	3,752	6,541	7,773	10,350	7,499	5,672	4,477	4,240	4,519	2,452	3,340	3,738
MAX	5,140	12,000	12,200	19,500	17,600	12,700	6,580	6,650	7,230	3,680	4,720	4,800
MIN	3,130	4,540	2,550	3,630	2,010	2,730	3,720	1,700	3,490	1,870	2,270	1,630
AC-FT	230,700	389,200	477,900	636,300	416,500	348,800	266,400	260,700	268,900	150,800	205,400	222,400

CAL YR 1970 TOTAL 1,558,390 MEAN 4,270 MAX 17,100 MIN 1,440 AC-FT 3,091,000
WTR YR 1971 TOTAL 1,953,100 MEAN 5,351 MAX 19,500 MIN 1,630 AC-FT 3,874,000

14152500 Coast Fork Willamette River at London, Oreg.

LOCATION.--Lat 43°38'30", long 123°05'05", in SW¼ sec.20, T.22 S., R.3 W., Lane County, on left bank 0.6 mile north of London, 11 miles south of Cottage Grove, and at mile 35.9.

DRAINAGE AREA.--72.1 sq mi.

PERIOD OF RECORD.--September 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is 852.38 ft above mean sea level (levels by Corps of Engineers). Sept. 18 to Oct. 17, 1935, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 205 cfs (38.61 inches per year, 148,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,310 cfs Jan. 17 (gage height, 8.19 ft); minimum, 13 cfs Oct. 1-4.
Period of record: Maximum discharge, 12,500 cfs Dec. 22, 1964 (gage height, 13.37 ft), from rating curve extended above 3,200 cfs on basis of slope-area measurement of peak flow; minimum daily, 7.5 cfs Sept. 26, 1965.

REMARKS.--Records good. No regulation. Diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1738: Drainage area. WRD Oreg. 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	42	492	694	214	199	389	180	231	66	26	59
2	13	38	484	443	200	204	326	190	196	63	24	96
3	13	35	712	327	179	478	280	190	159	58	24	66
4	13	36	613	261	244	480	253	180	137	55	25	43
5	14	53	535	223	280	355	246	160	121	54	25	35
6	16	52	572	194	247	327	239	140	109	51	25	35
7	17	44	705	173	220	461	216	130	102	49	24	31
8	16	59	533	210	196	533	200	130	94	47	23	28
9	15	118	376	405	178	433	397	123	88	48	23	26
10	15	102	295	619	179	826	464	115	90	49	23	24
11	15	257	293	518	176	1,410	371	112	83	46	23	24
12	14	354	246	385	169	1,430	337	129	77	44	22	24
13	14	194	218	305	161	921	301	123	81	43	23	23
14	14	131	263	283	171	742	266	105	77	42	23	22
15	14	100	474	1,400	255	637	238	120	70	41	22	21
16	13	114	1,080	1,620	245	507	223	144	66	40	22	21
17	13	100	657	3,020	208	407	273	119	63	38	22	19
18	18	88	416	3,130	211	346	356	109	89	37	21	19
19	22	83	307	2,000	238	313	294	103	81	37	21	18
20	43	76	261	1,500	221	303	301	100	71	34	21	17
21	68	79	221	883	204	309	296	95	64	33	21	17
22	83	79	185	628	213	496	287	90	60	32	33	17
23	210	332	161	518	232	904	307	88	58	30	27	17
24	226	1,400	144	448	272	782	326	87	57	29	21	17
25	232	681	133	402	313	644	335	98	171	28	19	21
26	209	450	125	352	276	720	312	162	141	28	18	48
27	113	1,240	121	313	260	648	278	138	108	27	19	34
28	79	640	176	282	230	503	241	124	94	27	19	84
29	63	370	473	254	-------	422	212	115	81	28	19	193
30	54	372	597	235	-------	485	191	114	72	26	19	111
31	47	-------	1,370	227	-------	462	-------	122	-------	26	33	-------
TOTAL	1,709	7,719	13,238	22,252	6,192	17,687	8,755	3,935	2,991	1,256	710	1,210
MEAN	55.1	257	427	718	221	571	292	127	99.7	40.5	22.9	40.3
MAX	232	1,400	1,370	3,130	313	1,430	464	190	231	66	33	193
MIN	13	35	121	173	161	199	191	87	57	26	18	17
CFSM	.76	3.56	5.92	9.96	3.07	7.92	4.05	1.76	1.38	.56	.32	.56
IN.	.88	3.98	6.83	11.48	3.19	9.13	4.52	2.03	1.54	.65	.37	.62
AC-FT	3,390	15,310	26,260	44,140	12,280	35,080	17,370	7,810	5,930	2,490	1,410	2,400

CAL YR 1970 TOTAL 72,354 MEAN 198 MAX 2,570 MIN 11 CFSM 2.75 IN 37.33 AC-FT 143,500
WTR YR 1971 TOTAL 87,654 MEAN 240 MAX 3,130 MIN 13 CFSM 3.33 IN 45.23 AC-FT 173,900

PEAK DISCHARGE (BASE, 2,100 CFS).--Jan. 17 (1830) 4,310 cfs (8.19 ft); Mar. 11 (2200) 2,210 cfs (5.82 ft).

14153000 Cottage Grove Lake near Cottage Grove, Oreg.
(Formerly published as Cottage Grove Reservoir near Cottage Grove)

LOCATION.--Lat 43°43'00", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, in east abutment of dam on Coast Fork Willamette River 5.8 miles south of Cottage Grove, and at mile 29.7.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 33,990 acre-ft Jan. 20 (elevation, 791.91 ft); minimum observed, 45 acre-ft Nov. 15 (elevation, 725.00 ft).

Period of record: Maximum contents, 36,750 acre-ft Dec. 24, 1964 (elevation, 794.23 ft); minimum since first filling, no contents Sept. 26 to Oct. 19, 1966, and Nov. 14, 15, Nov. 20 to Dec. 8, 1969.

REMARKS.--Reservoir is formed by earth-fill dam with concrete spillway completed by Corps of Engineers in 1942; storage began Oct. 31, 1942. Capacity, 32,930 acre-ft between elevations 719.0 (outlet conduit) and 791.0 ft (crest of spillway). Dead storage negligible. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1218: 1950. WRD 1967 Oreg.: 1966.

Capacity table (elevation, in feet, and total contents, in acre-feet)

710.9	0	755	4,860	780	21,460
730	151	760	7,150	785	26,370
740	926	765	9,970	790	31,780
745	1,840	770	13,260	793	35,270
750	3,160	775	17,070		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,200	2,000	1,260	4,900	7,370	10,780	18,500	26,780	31,900	31,730	29,590	13,060
2	7,900	1,510	649	4,180	7,180	10,910	19,020	27,200	31,900	31,740	29,470	12,840
3	7,590	1,070	494	3,480	6,950	11,290	19,380	27,520	31,930	31,730	29,350	12,490
4	7,300	660	224	3,320	6,950	11,420	19,640	27,840	31,890	31,690	29,230	12,100
5	6,980	392	194	3,320	6,950	11,230	19,910	28,050	31,780	31,660	29,110	11,710
6	6,700	145	328	3,230	6,800	11,230	20,207	28,260	31,780	31,600	28,990	11,310
7	6,410	111	272	3,140	6,650	11,420	20,720	28,430	31,780	31,560	28,870	10,890
8	6,120	136	145	3,180	6,550	11,550	20,820	28,640	31,780	31,560	28,740	10,470
9	5,920	130	104	3,220	6,600	11,620	21,090	28,780	31,810	31,560	28,260	10,080
10	5,740	75	106	3,380	6,670	12,290	21,090	28,900	31,830	31,560	27,540	9,660
11	5,570	127	317	3,180	6,850	13,940	21,180	29,030	31,830	31,560	26,720	9,240
12	5,390	101	777	3,000	7,080	15,690	21,560	29,190	31,830	31,550	25,890	8,810
13	5,220	63	1,000	3,050	7,360	15,470	22,030	29,340	31,840	31,510	25,060	8,350
14	5,050	49	1,020	3,140	7,610	15,150	22,600	29,490	31,830	31,480	24,230	7,860
15	4,870	49	1,730	6,830	7,910	15,010	22,980	29,700	31,810	31,440	23,410	7,380
16	4,710	88	2,870	10,770	8,120	14,380	23,460	30,000	31,780	31,340	22,580	6,890
17	4,540	133	2,810	18,400	8,370	14,340	24,150	30,190	31,780	31,250	21,750	6,400
18	4,390	81	2,720	26,230	8,880	14,710	24,650	30,350	31,830	31,180	20,910	5,930
19	4,250	54	2,700	31,910	9,250	15,170	24,950	30,490	31,800	31,100	20,100	5,480
20	4,150	57	2,700	33,960	9,390	15,710	25,350	30,650	31,780	31,000	19,300	5,030
21	4,040	54	2,650	31,880	9,490	16,260	25,550	30,770	31,780	30,880	18,530	5,590
22	3,900	73	2,690	27,880	9,720	16,990	25,760	30,860	31,780	30,760	17,800	4,170
23	3,910	334	2,740	22,880	10,100	16,990	25,860	30,960	31,750	30,630	17,150	3,780
24	4,070	3,410	2,760	18,430	10,580	16,420	25,860	31,050	31,690	30,520	16,660	3,420
25	4,260	3,230	2,740	13,460	10,910	16,340	25,860	31,210	31,860	30,420	16,170	3,080
26	4,320	2,610	2,720	10,910	10,910	16,580	25,860	31,350	31,840	30,300	15,680	2,780
27	3,990	4,280	2,720	9,570	10,910	16,500	25,960	31,440	31,670	30,180	15,190	2,380
28	3,680	3,990	2,910	8,920	10,810	16,420	26,160	31,740	31,670	30,050	14,730	2,010
29	3,420	2,980	3,080	8,550	------	16,580	26,270	31,840	31,690	29,930	14,250	1,900
30	3,000	1,860	3,800	8,130	------	17,160	26,470	31,930	31,700	29,830	13,830	1,570
31	2,500	------	4,820	7,670	------	17,820	------	31,930	------	29,720	13,420	------
MAX	8,200	4,280	4,820	33,960	10,910	17,820	26,470	31,930	31,930	31,740	29,590	13,060
MIN	2,500	49	104	3,000	6,550	10,780	18,500	26,780	31,670	29,720	13,420	1,570
(†)	747.70	745.08	754.90	760.98	766.35	775.90	785.10	790.13	789.93	788.15	770.23	743.69
(‡)	-6,010	-640	+2,960	+2,850	+3,140	+7,010	+8,650	+5,460	-230	-1,980	-16,300	-11,850

CAL YR 1970 MAX 33,970 MIN 49 AC-FT ‡ +1,590
WTR YR 1971 MAX 33,960 MIN 49 AC-FT ‡ -6,940

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14153500 Coast Fork Willamette River below Cottage Grove Dam, Oreg.

LOCATION.--Lat 43°43'15", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, on right bank at bridge 0.3 mile downstream from Cottage Grove Dam, 5.5 miles south of Cottage Grove, and at mile 29.4.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1944, published as "near Cottage Grove."

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above mean sea level (Corps of Engineers bench mark). Jan. 1 to Oct. 12, 1939, nonrecording gage and Oct. 13, 1939, to Sept. 30, 1944, water-stage recorder at several sites and datums 0.8 mile downstream.

AVERAGE DISCHARGE.--32 years, 281 cfs (36.69 inches per year, 203,600 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,280 cfs Jan. 21 (gage height, 9.17 ft); minimum, 50 cfs Nov. 24.
Period of record: Maximum discharge, 5,910 cfs Dec. 24, 1964 (gage height, 11.83 ft); practically no flow July 5-7, 1945, Aug. 24, 1947.

REMARKS.--Records excellent. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000). Small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1448: 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	292	1,040	1,050	442	316	253	97	313	83	84	256
2	163	277	970	1,030	368	253	213	62	301	83	84	256
3	160	262	1,140	848	368	459	244	62	238	83	84	253
4	160	247	1,110	437	365	717	226	76	223	83	84	253
5	160	223	716	346	382	681	210	84	200	83	84	250
6	158	195	763	343	417	532	155	84	160	83	84	250
7	158	118	871	307	414	588	117	84	125	71	84	247
8	155	72	767	286	328	695	238	84	115	56	83	247
9	120	146	552	516	235	645	435	84	115	56	259	244
10	103	173	434	696	218	776	668	84	115	56	396	241
11	101	289	295	826	155	1,320	484	84	115	56	428	238
12	101	500	88	648	119	1,140	322	86	115	56	442	238
13	101	280	203	437	121	1,480	200	86	115	56	442	262
14	99	178	371	388	121	1,270	115	71	115	56	438	271
15	98	130	504	178	229	1,040	117	65	103	72	435	268
16	98	128	871	388	262	1,070	117	65	86	86	431	265
17	96	126	1,030	66	155	636	117	65	81	84	428	262
18	96	155	664	74	113	322	247	65	117	84	424	259
19	96	107	479	75	175	244	265	65	115	84	421	256
20	96	99	413	1,180	265	180	259	65	88	84	417	250
21	130	99	364	2,390	265	158	331	65	84	84	414	247
22	190	98	259	2,980	213	396	331	65	84	84	410	241
23	214	325	217	3,150	160	1,230	372	65	84	86	358	220
24	217	286	217	3,140	163	1,340	466	65	84	84	268	210
25	217	961	214	3,110	286	990	500	65	178	84	268	205
26	277	956	193	1,860	417	885	400	158	220	84	265	203
27	325	853	180	1,120	428	945	325	141	178	84	265	244
28	250	1,020	200	686	414	749	268	84	105	84	262	292
29	211	995	572	540	------	556	195	84	83	84	262	298
30	277	1,060	736	536	------	410	163	143	83	84	259	307
31	301	------	961	532	------	316	------	188	------	84	259	------
TOTAL	5,091	10,656	17,394	30,163	7,598	22,339	8,353	2,641	4,138	2,381	8,922	7,533
MEAN	164	355	561	973	271	721	278	85.2	138	76.8	288	251
MAX	325	1,060	1,140	3,150	442	1,480	668	188	313	86	442	307
MIN	96	72	88	66	113	158	115	62	81	56	83	203
AC-FT	10,100	21,120	34,500	59,830	15,070	44,310	16,570	5,240	8,210	4,720	17,700	14,940
MEAN†	66.5	344	609	1,019	328	835	424	174	134	44.6	22.8	51.9
CFSM†	.640	3.31	5.86	9.80	3.15	8.03	4.08	1.67	1.29	.429	.219	.499
IN.†	.74	3.69	6.76	13.03	3.28	9.25	4.55	1.93	1.44	.49	.25	.56
AC-FT†	4,090	20,480	37,460	62,680	18,210	51,320	25,220	10,700	7,980	2,740	1,400	3,090

CAL YR 1970 TOTAL 98,325 MEAN 269 MAX 2,960 MIN 71 AC-FT 195,000 MEAN† 272 CFSM† 2.61 IN.† 35.45 AC-FT† 196,590
WTR YR 1971 TOTAL 127,203 MEAN 349 MAX 3,150 MIN 56 AC-FT 252,300 MEAN† 339 CFSM† 3.26 IN.† 44.25 AC-FT† 245,360

† Adjusted for change in contents of Cottage Grove Lake.

14156500 Row River above Pitcher Creek, near Dorena, Oreg.

LOCATION.--Lat 43°44'10", long 122°52'20", in NE¼ sec.26, T.21 S., R.2 W., Lane County, on right bank 0.3 mile upstream from Pitcher Creek, 1.2 miles northwest of Dorena, and at mile 13.2.

DRAINAGE AREA.--211 sq mi.

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1949, published as "at Star."

GAGE.--Water-stage recorder. Datum of gage is 836.16 ft above mean sea level. Sept. 16, 1935, to Oct. 17, 1938, nonrecording gage at site 450 ft upstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--36 years, 596 cfs (38.36 inches per year, 431,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,400 cfs Jan. 17 (gage height, 12.98 ft); minimum, 19 cfs Oct. 2-4.
Period of record: Maximum discharge, 33,100 cfs Dec. 22, 1964 (gage height, 18.19 ft), from rating curve extended above 12,000 cfs on basis of slope-area measurement of peak flow; minimum, 10 cfs Sept. 24, 25, 1951, Oct. 7, 8, 1938.

REMARKS.--Records good. Slight regulation caused by upstream logponds. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	184	982	1,490	912	536	1,150	840	972	178	45	68
2	19	164	908	933	790	484	1,030	912	840	158	44	172
3	19	140	1,390	675	640	640	954	1,000	675	146	42	146
4	19	125	1,410	532	645	755	972	972	565	130	41	76
5	22	174	1,320	448	800	630	1,230	815	500	122	39	57
6	28	212	2,190	398	825	575	1,300	650	472	113	39	52
7	36	182	3,520	371	715	760	1,050	635	452	106	38	50
8	31	317	2,030	859	630	1,040	858	775	384	99	37	44
9	28	605	1,270	2,950	580	954	1,340	665	348	99	35	41
10	29	419	933	2,960	1,020	1,350	1,430	570	340	102	34	38
11	29	939	994	1,910	1,050	2,960	1,120	640	319	92	33	37
12	26	1,900	803	1,230	984	3,990	1,070	785	301	86	32	37
13	24	816	665	920	912	2,190	1,010	835	307	82	32	35
14	24	480	660	745	790	1,610	996	575	301	78	32	33
15	23	356	1,060	3,540	1,070	1,340	924	500	268	76	31	32
16	22	392	2,090	6,580	912	1,060	805	536	247	75	31	31
17	20	392	1,350	14,100	735	858	760	480	226	72	31	30
18	25	350	908	12,700	675	745	858	432	274	68	31	28
19	37	398	675	8,200	770	740	825	436	289	66	30	27
	70	380	570	5,540	685	888	846	424	253	64	29	27
21	200	368	488	2,650	655	1,180	805	388	238	59	30	27
22	323	353	416	1,670	670	2,360	780	368	238	57	51	27
23	803	2,010	368	1,380	775	4,420	846	428	220	54	52	26
24	957	5,760	344	1,380	978	3,730	918	480	175	53	38	26
25	715	2,820	305	1,150	1,180	2,630	990	484	536	52	34	30
26	610	1,630	287	1,010	888	3,060	1,150	864	516	50	31	83
27	368	2,960	269	924	765	2,190	1,140	760	348	48	31	76
28	281	1,640	359	894	665	1,600	948	655	286	46	33	99
29	263	1,080	902	835	-------	1,480	820	565	235	46	31	528
30	245	1,020	1,170	830	-------	1,640	755	545	199	44	31	295
31	214	-------	3,100	978	-------	1,430	-------	555	-------	45	38	-------
TOTAL	5,530	28,566	33,736	80,782	22,716	49,825	29,680	19,569	11,324	2,564	1,106	2,278
MEAN	178	952	1,088	2,606	811	1,607	989	631	377	82.7	35.7	75.9
MAX	957	5,760	3,520	14,100	1,180	4,420	1,430	1,000	972	178	52	528
MIN	19	125	269	371	580	484	755	368	175	44	29	26
CFSM	.84	4.51	5.16	12.4	3.84	7.62	4.69	2.99	1.79	.39	.17	.36
IN.	.97	5.04	5.95	14.24	4.00	8.78	5.23	3.45	2.00	.45	.19	.40
AC-FT	10,970	56,660	66,920	160,200	45,060	98,830	58,870	38,820	22,460	5,090	2,190	4,520

CAL YR 1970 TOTAL 222,754 MEAN 610 MAX 7,400 MIN 14 CFSM 2.89 IN 39.27 AC-FT 441,800
WTR YR 1971 TOTAL 287,676 MEAN 788 MAX 14,100 MIN 19 CFSM 3.73 IN 50.72 AC-FT 570,600

PEAK DISCHARGE (BASE, 7,000 CFS).--Nov. 24 (1100) 7,820 cfs (9.53 ft); Jan. 17 (2100) 17,400 cfs (12.98 ft).

14155000 Dorena Lake near Cottage Grove, Oreg.
(Formerly published as Dorena Reservoir near Cottage Grove)

LOCATION.--Lat 43°47'10", long 122°57'15", in SE¼ sec.32, T.20 S., R.2 W., Lane County, on left end of Dorena Dam on Row River, 5.0 miles east of Cottage Grove, and at mile 7.61.

DRAINAGE AREA.--265 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 89,250 acre-ft Jan. 19 (elevation, 840.96 ft); minimum observed, 159 acre-ft Dec. 14 (elevation, 743.60 ft).

Period of record: Maximum contents, 95,550 acre-ft Dec. 23, 1964 (elevation, 844.03 ft); minimum observed since first filling, 159 acre-ft Dec. 14, 1970 (elevation,743.60 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete outlet and spillway, completed in 1949 by Corps of Engineers; controlled storage began Oct. 11, 1949. Capacity, 77,580 acre-ft between elevations 739.0 (sill of outlet gates) and 835.0 ft (crest of spillway). Dead storage, 18 acre-ft below elevation 739.0 ft. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

740	35	770	6,840	800	28,490	830	68,470
745	237	775	9,540	805	33,700	835	77,600
750	712	780	12,530	810	39,380	840	87,320
755	1,550	785	15,850	815	45,620	845	97,580
760	2,810	790	19,580	820	52,480		
765	4,360	795	23,780	825	60,060		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,280	7,730	9,710	11,540	25,870	23,780	42,710	61,560	73,750	72,600	66,950	48,620
2	15,070	7,320	7,260	11,000	23,690	24,070	43,300	62,920	73,510	72,560	66,600	48,380
3	14,880	7,210	7,530	9,820	21,230	24,820	43,910	63,790	73,400	72,530	66,210	47,890
4	14,670	7,160	6,640	8,280	20,380	25,500	44,550	63,980	73,330	72,450	65,840	47,340
5	14,460	7,360	4,820	7,030	20,300	25,720	45,280	63,910	73,330	72,400	65,470	46,750
6	14,280	7,510	5,270	6,940	19,990	25,980	45,850	63,820	73,330	72,340	65,070	46,170
7	14,110	7,440	8,060	7,040	19,390	26,690	46,220	63,990	73,055	72,270	64,680	45,580
8	13,940	7,720	6,260	8,490	19,040	28,110	46,380	64,520	72,960	72,380	64,360	44,960
9	13,680	8,080	3,100	13,830	19,190	28,880	47,440	64,820	72,960	72,400	64,240	44,340
10	13,400	7,360	568	18,700	20,380	30,160	47,750	65,010	73,040	72,450	63,990	43,640
11	13,100	7,720	237	19,180	21,200	34,170	48,010	65,650	73,000	72,530	63,490	43,020
12	12,800	9,040	196	16,460	21,630	41,830	48,680	67,020	72,930	72,540	62,780	42,380
13	12,510	8,000	159	13,270	21,630	42,480	49,480	68,000	72,950	72,540	61,970	41,650
14	12,220	7,970	251	8,900	21,650	39,400	50,380	68,510	72,930	72,560	61,170	40,910
15	11,920	7,540	1,280	15,210	21,940	35,790	51,290	69,240	72,820	72,400	60,380	40,170
16	11,580	7,290	3,160	12,850	21,710	31,630	51,920	70,090	72,800	72,160	59,580	39,390
17	11,280	7,140	3,020	61,540	21,890	30,640	52,710	70,770	72,860	71,870	58,860	38,840
18	11,010	7,160	2,960	87,260	22,580	31,680	53,640	71,370	73,070	71,660	58,010	38,510
19	10,760	7,280	2,950	89,250	23,340	32,970	54,390	71,780	73,090	71,480	57,270	38,180
20	10,570	7,170	3,000	85,960	23,670	34,280	55,520	71,800	73,040	71,120	56,520	37,740
21	10,580	7,110	2,890	82,190	23,900	35,470	56,490	71,820	73,020	70,740	55,860	37,390
22	10,500	7,150	3,030	77,410	24,490	38,430	57,480	72,090	73,000	70,410	55,200	37,040
23	11,170	9,270	3,150	71,060	25,600	42,340	58,530	72,710	72,960	70,070	54,490	36,140
24	12,250	20,380	3,140	63,690	27,190	42,180	59,310	72,980	72,960	69,750	53,780	35,040
25	12,890	23,820	3,120	55,940	28,470	41,560	60,090	73,130	73,370	69,450	53,110	33,980
26	12,910	22,040	3,080	48,230	27,710	41,990	60,720	73,370	72,960	69,130	52,350	33,040
27	12,080	22,890	3,080	40,520	26,100	41,140	60,960	73,200	72,710	68,770	51,690	32,090
28	10,890	19,470	3,250	35,710	24,360	40,870	60,700	73,160	72,640	68,420	50,950	31,380
29	9,960	14,780	4,160	37,060	------	41,060	60,530	73,160	72,620	68,070	50,270	31,440
30	9,220	11,690	5,400	29,560	------	41,860	60,610	73,180	72,640	67,640	49,610	30,980
31	8,530	------	10,770	27,780	------	42,370	-----	73,330	------	67,310	49,050	------
MAX	15,280	23,820	10,770	89,250	28,470	42,480	60,960	73,370	73,750	72,600	66,950	48,620
MIN	8,530	7,110	159	6,940	19,040	23,780	42,710	61,560	72,620	67,310	49,050	30,980
(†)	773.19	778.64	777.11	799.28	795.64	812.46	825.34	832.70	832.32	829.34	817.56	802.45
(‡)	-6,940	+3,160	-920	+17,010	-3,420	+18,010	+18,240	+12,720	-690	-5,330	-18,260	-18,070

CAL YR 1970 MAX 85,130 MIN 159 AC-FT ‡ +2,570
WTR YR 1971 MAX 89,250 MIN 159 AC-FT ‡ +15,510

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14155500 Row River near Cottage Grove, Oreg.

LOCATION.--Lat 43°47'35", long 122°59'25", in NE¼ sec.36, T.20 S., R.3 W., Lane County, on right bank 1.7 miles upstream from Mosby Creek, 2.1 miles downstream from Dorena Dam, 3.5 miles east of Cottage Grove, and at mile 5.5.

DRAINAGE AREA.--270 sq mi.

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1947, published as "near Dorena."

GAGE.--Water-stage recorder. Datum of gage is 685.24 ft above mean sea level (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft upstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--32 years, 754 cfs (37.92 inches per year, 546,300 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 9,900 cfs Jan. 19 (gage height, 11.64 ft); minimum, 93 cfs Aug. 9-11.
Period of record: Maximum discharge, 21,400 cfs Dec. 28, 1945 (gage height, 18.20 ft); minimum, 0.20 cfs Sept. 25 to Oct. 7, 1958.

REMARKS.--Records good. Flow regulated since October 1949 by Dorena Lake (see station 14155000). No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	534	2,340	1,560	2,020	1,040	1,310	542	976	223	208	377
2	124	355	2,380	1,530	2,010	512	994	385	1,110	223	207	375
3	124	189	1,740	1,490	2,000	578	878	708	844	193	207	375
4	124	162	2,220	1,430	1,300	753	855	1,020	699	178	208	375
5	124	106	2,390	1,150	1,060	786	1,080	937	586	178	206	373
6	124	159	2,450	557	1,190	709	1,220	775	545	177	204	370
7	121	211	2,850	405	1,190	775	1,050	637	522	155	204	370
8	121	219	3,230	520	908	822	919	595	474	101	204	370
9	156	567	2,870	934	628	924	1,140	597	410	101	143	365
10	175	824	2,030	1,050	597	1,250	1,610	540	385	101	94	365
11	172	902	1,240	2,200	777	1,920	1,320	380	385	101	168	365
12	172	1,620	1,020	3,130	896	1,080	1,020	297	385	101	282	361
13	172	1,520	843	2,970	1,020	2,510	856	420	368	100	373	393
14	172	605	823	3,290	908	3,810	721	376	355	99	399	410
15	168	600	1,220	1,410	1,120	3,720	724	228	334	156	397	410
16	168	594	2,160	762	1,210	3,610	645	234	283	211	395	405
17	168	539	1,910	197	798	1,740	582	219	237	211	395	305
18	168	396	1,260	2,670	526	474	612	179	258	211	394	200
19	165	421	907	9,170	601	300	643	294	323	211	392	200
20	165	495	743	8,330	717	444	600	482	304	211	390	200
21	193	460	676	5,360	720	815	574	437	274	211	390	199
22	380	409	485	4,650	609	1,310	577	266	264	211	390	197
23	534	1,300	410	5,120	498	3,320	651	189	264	211	387	442
24	550	1,040	410	5,670	505	4,600	880	359	221	210	385	583
25	561	1,710	373	5,500	913	3,640	953	525	437	209	385	579
26	732	3,030	354	5,310	1,570	3,480	1,180	900	768	208	385	575
27	890	3,400	321	5,180	1,810	3,190	1,300	972	536	208	385	572
28	872	4,010	363	3,680	1,780	2,170	1,300	761	349	208	382	569
29	743	3,950	804	2,890	------	1,740	1,070	647	264	208	380	567
30	611	3,060	1,100	2,310	------	1,680	864	616	223	208	380	563
31	550	------	1,510	2,070	------	1,580	------	618	------	208	379	------
TOTAL	9,623	33,387	43,432	92,495	29,881	55,282	28,128	16,135	13,383	5,542	9,698	11,810
MEAN	310	1,113	1,401	2,984	1,067	1,783	938	520	446	179	313	394
MAX	890	4,010	3,230	9,170	2,020	4,600	1,610	1,020	1,110	223	399	583
MIN	121	106	321	197	498	300	574	179	221	99	94	197
AC-FT	19,090	66,220	86,150	183,500	59,270	109,700	55,790	32,000	26,550	10,990	19,240	23,430
MEAN†	198	1,166	1,386	3,261	1,006	2,077	1,244	727	435	92.0	15.9	90.0
CFSM†	.733	4.32	5.13	12.08	3.73	7.69	4.61	2.69	1.61	.341	.059	.333
IN.†	0.84	4.82	5.92	13.93	3.88	8.87	5.14	3.11	1.80	.39	.07	.37
AC-FT†	12,150	69,380	85,230	200,510	55,850	127,710	74,030	44,720	25,860	5,660	980	5,360

CAL YR 1970 TOTAL 278,876 MEAN 764 MAX 6,090 MIN 98 AC-FT 553,200 MEAN† 768 CFSM† 2.84 IN.† 38.60 AC-FT† 555,770
WTR YR 1971 TOTAL 348,796 MEAN 956 MAX 9,170 MIN 94 AC-FT 691,800 MEAN† 977 CFSM† 3.62 IN.† 49.13 AC-FT† 707,310

† Adjusted for change in contents in Dorena Lake.

14156500 Mosby Creek at mouth, near Cottage Grove, Oreg.

LOCATION.--Lat 43°46'35", long 122°59'55", in SE¼NW¼ sec.1, T.21 ° , R.3 W., Lane County, on left bank 3.5 miles southeast of Cottage Grove, and at mile 1.0.

DRAINAGE AREA.--95.3 sq mi.

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only September 1946, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 676.62 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--25 years, 246 cfs (35.05 inches per year, 178,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,030 cfs Jan. 17 (gage height, 8.56 ft); minimum, 6.6 cfs Oct. 4.
Period of record: Maximum discharge, 14,100 cfs Dec. 22, 1964 (gage height, 13.37 ft), from rating curve extended above 4,600 cfs on basis of slope-area measurement of peak flow; minimum, 3.0 cfs Sept. 4, 1967.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	48	708	947	249	261	462	209	439	57	15	28
2	6.9	42	786	576	229	253	373	209	373	52	14	80
3	6.9	40	1,090	379	193	618	314	213	273	47	13	74
4	6.6	39	1,060	277	253	762	281	205	209	42	13	39
5	7.8	60	774	217	346	534	289	177	165	41	13	28
6	9.0	82	846	181	310	462	289	149	139	38	13	25
7	10	70	1,130	154	265	714	249	135	129	35	12	22
8	11	101	846	259	229	884	213	145	107	32	12	18
9	10	273	582	702	201	654	428	132	93	32	11	16
10	11	200	428	889	229	870	690	116	93	34	10	14
11	11	430	434	764	229	1,650	516	116	83	31	10	14
12	12	779	357	553	221	1,970	468	132	76	29	9.6	14
13	12	384	300	412	213	1,100	401	157	76	28	9.1	13
14	14	233	315	340	205	864	346	119	74	26	9.6	13
15	14	168	630	2,460	350	756	301	105	62	24	9.6	12
16	14	181	1,540	2,340	359	582	265	149	57	23	10	12
17	15	178	975	4,410	293	439	277	142	54	22	9.6	11
18	18	149	594	4,240	273	350	382	119	71	20	9.6	9.1
19	24	144	401	2,610	355	310	337	107	76	20	9.1	8.7
20	39	139	320	1,980	328	319	337	102	62	19	8.7	8.2
21	87	144	254	1,050	293	364	350	102	55	17	8.7	8.7
22	125	144	205	684	281	564	337	93	50	17	13	8.7
23	306	773	170	516	301	1,230	355	91	47	17	18	8.2
24	375	2,340	147	434	359	1,100	395	91	45	16	13	7.8
25	339	1,250	131	377	474	877	406	96	181	16	11	9.1
26	328	811	123	323	386	1,070	395	233	193	15	9.6	25
27	156	1,810	115	289	355	926	355	233	123	15	9.6	30
28	103	1,070	154	273	314	666	293	189	96	15	10	41
29	79	618	732	253	------	546	245	161	78	15	9.6	241
30	66	570	804	241	------	594	213	169	64	15	9.6	142
31	55	------	1,860	257	------	582	------	185	------	15	13	------
TOTAL	2,278.2	13,270	18,811	29,387	8,093	22,871	10,562	4,581	3,643	825	346.0	980.5
MEAN	73.5	442	607	948	289	738	352	148	121	26.6	11.2	32.7
MAX	375	2,340	1,860	4,410	474	1,970	690	233	439	57	18	241
MIN	6.6	39	115	154	193	253	213	91	45	15	8.7	7.8
CFSM	.77	4.64	6.37	9.95	3.03	7.74	3.69	1.55	1.27	.28	.12	.34
IN.	.89	5.18	7.34	11.47	3.16	8.93	4.12	1.79	1.42	.32	.14	.38
AC-FT	4,520	26,320	37,310	58,290	16,050	45,360	20,950	9,090	7,230	1,640	686	1,940

CAL YR 1970 TOTAL 93,082.6 MEAN 255 MAX 3,440 MIN 4.8 CFSM 2.68 IN 36.33 AC-FT 184,600
WTR YR 1971 TOTAL 115,647.7 MEAN 317 MAX 4,410 MIN 6.6 CFSM 3.33 IN 45.14 AC-FT 229,400

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0830	5.92	3,100	3-12	0100	5.87	2,870
1-17	2030	8.56	6,030				

14157500 Coast Fork Willamette River near Goshen, Oreg.

LOCATION.--Lat 43°58'50", long 122°57'55", in NW¼ sec.29, T.18 S., R.2 W., Lane County, on right bank at downstream side of bridge on State Highway 58, 2.5 miles southeast of Goshen, and mile 6.4.

DRAINAGE AREA.--642 sq mi.

PERIOD OF RECORD.--August 1905 to February 1912, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 473.80 ft above mean sea level. Aug. 23, 1905, to Feb. 7, 1912, nonrecording gage at site 600 ft upstream at different datum.

AVERAGE DISCHARGE.--27 years (1905-11, 1950-71), 1,694 cfs (1,227,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,600 cfs Jan. 20 (gage height, 14.29 ft); minimum, 138 cfs July 14.
Period of record: Maximum discharge, 58,500 cfs Nov. 22, 1909 (gage height, 19.5 ft, site and datum then in use), from rating curve extended above 15,000 cfs; minimum, 36 cfs Sept. 29, 30, Oct. 11, 12, 1908.

REMARKS.--Records excellent. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000) and since 1949 by Dorena Lake (see station 14155000). Several small diversions for logponds and irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1248: 1905-12. WSP 1935: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	864	5,350	5,350	3,020	2,550	2,680	1,150	1,560	400	288	640
2	292	780	5,420	4,100	2,820	1,510	2,050	830	1,950	392	290	682
3	286	520	5,140	3,490	2,760	2,880	1,760	935	1,470	371	285	685
4	292	508	5,940	2,690	2,500	3,810	1,620	1,370	1,160	331	281	643
5	292	448	4,570	2,180	2,140	3,260	1,690	1,320	1,010	325	279	627
6	292	460	4,610	1,520	2,250	2,570	1,880	1,160	874	320	283	622
7	292	484	5,260	1,180	2,140	2,750	1,660	991	805	306	283	613
8	286	418	5,620	1,300	1,860	3,220	1,440	928	732	212	282	605
9	292	857	4,610	2,390	1,280	2,900	2,540	928	659	185	299	601
10	298	1,230	3,500	3,570	1,190	3,360	4,110	872	619	185	449	596
11	286	1,430	2,440	4,510	1,240	6,780	3,300	767	603	189	495	594
12	286	2,750	1,750	5,510	1,330	7,370	2,390	641	586	181	625	593
13	286	2,620	1,550	4,630	1,390	6,120	2,010	732	593	173	716	607
14	286	1,120	1,630	4,630	1,420	7,580	1,480	767	571	153	766	647
15	280	956	2,840	8,740	2,070	6,780	1,390	578	544	157	765	647
16	275	934	7,540	7,690	2,370	6,180	1,310	614	484	298	761	645
17	280	920	5,980	9,600	1,750	4,400	1,440	641	423	308	756	615
18	280	780	3,580	11,600	1,270	1,850	1,700	524	417	308	755	477
19	275	682	2,410	15,900	1,590	1,260	1,630	524	558	310	751	468
20	292	759	1,950	16,600	1,710	1,200	1,500	746	493	309	748	460
21	346	738	1,690	11,000	1,590	1,440	1,590	739	449	302	742	455
22	583	696	1,350	9,500	1,510	2,300	1,500	620	418	296	759	454
23	927	1,710	1,040	9,480	1,310	5,820	1,550	482	410	299	747	530
24	1,170	5,580	977	10,200	1,340	8,090	2,070	512	405	299	630	750
25	1,110	3,920	920	9,880	2,110	6,870	2,160	753	567	300	613	757
26	1,270	5,790	857	8,820	2,860	6,580	2,260	1,170	1,150	296	614	767
27	1,350	6,950	836	7,180	3,480	6,570	2,240	1,530	964	291	611	783
28	1,230	7,180	977	5,800	3,250	4,800	2,110	1,120	631	292	608	872
29	1,050	6,120	3,490	4,200	------	3,580	1,820	970	507	293	609	1,020
30	934	5,660	4,430	3,670	------	3,560	1,400	921	420	290	610	998
31	892	------	8,200	3,160	------	3,200	------	984	------	289	620	------
TOTAL	16,602	63,864	106,457	200,070	55,550	131,140	58,280	26,819	22,032	8,660	17,320	19,453
MEAN	536	2,129	3,434	6,454	1,984	4,230	1,943	865	734	279	559	648
MAX	1,350	7,180	8,200	16,600	3,480	8,090	4,110	1,530	1,950	400	766	1,020
MIN	275	418	836	1,180	1,190	1,200	1,310	482	405	153	279	454
AC-FT	32,930	126,700	211,200	396,800	110,200	260,100	115,600	53,200	43,700	17,180	34,350	38,590

CAL YR 1970 TOTAL 586,410 MEAN 1,607 MAX 14,100 MIN 245 AC-FT 1,163,000
WTR YR 1971 TOTAL 726,247 MEAN 1,990 MAX 16,600 MIN 153 AC-FT 1,441,000

14158500 McKenzie River at outlet of Clear Lake, Oreg.

LOCATION.--Lat 44°21'40", long 121°59'40", in SE¼ sec.8, T.14 S., R.7 E., Linn County, Willamette National Forest, on west bank of Clear Lake in narrow channel, 150 ft upstream from outlet and at mile 89.6.

DRAINAGE AREA.--92.4 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1912 to September 1915, October 1947 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 3,015.32 ft above mean sea level (levels by Eugene Water and Electric Board). June 20, 1912, to July 31, 1915, nonrecording gage at site 1 mile north at different datum.

AVERAGE DISCHARGE.--27 years, 473 cfs (69.52 inches per year, 342,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,700 cfs Jan. 18 (gage height, 5.55 ft); minimum, 170 cfs Oct. 19.
Period of record: Maximum discharge, 3,300 cfs Dec. 23, 1964 (gage height, 8.15 ft); minimum daily, 160 cfs Sept. 29, 30, 1915.

REMARKS.--Records good. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake above station.

REVISIONS (WATER YEARS).--WSP 1288: 1949. WSP 1318: 1915(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	203	600	337	654	486	538	582	1,030	709	533	427
2	187	203	588	328	622	476	533	625	998	695	527	421
3	186	203	575	320	589	470	527	732	974	676	519	409
4	185	205	542	313	576	458	522	867	965	656	516	407
5	185	208	519	306	542	442	523	872	965	644	511	407
6	185	209	514	299	515	431	536	831	966	633	509	407
7	182	216	531	293	495	424	552	847	977	622	504	405
8	180	230	550	297	482	417	561	963	959	613	502	403
9	180	243	523	310	473	413	611	1,030	940	609	497	401
10	179	253	498	333	499	422	654	1,020	922	606	496	398
11	178	280	492	339	607	423	650	1,040	910	598	491	397
12	176	301	479	344	609	423	623	1,130	901	590	489	393
13	175	308	468	350	611	419	609	1,250	901	584	483	388
14	174	318	461	363	624	416	603	1,190	901	577	481	382
15	174	331	453	399	682	410	605	1,150	891	575	474	378
16	172	351	450	448	684	405	606	1,140	869	571	475	373
17	172	352	433	776	657	402	600	1,090	848	568	469	371
18	173	363	420	1,600	646	400	587	1,050	843	561	466	367
19	171	373	409	1,570	634	398	575	1,030	863	556	459	363
20	172	380	407	1,480	617	396	572	1,020	856	547	456	360
21	175	383	398	1,170	601	393	563	994	847	542	450	356
22	179	388	391	1,100	585	400	550	986	848	539	448	352
23	193	413	385	1,070	566	409	542	1,000	842	554	439	351
24	198	689	377	1,040	560	418	530	1,050	809	546	433	348
25	204	1,010	372	995	553	424	520	1,090	850	562	428	348
26	210	788	365	938	532	441	520	1,150	852	582	423	347
27	212	667	361	886	516	450	526	1,150	798	574	420	341
28	211	608	361	833	501	475	534	1,180	765	561	415	343
29	208	591	356	781	------	515	545	1,190	740	554	411	346
30	206	597	353	730	------	540	559	1,130	721	546	412	340
31	204	------	352	690	------	544	------	1,070	------	541	413	------
TOTAL	5,775	11,664	13,983	21,038	16,232	13,540	16,976	31,449	26,551	18,291	14,549	11,329
MEAN	186	389	451	679	580	437	566	1,014	885	590	469	378
MAX	212	1,010	600	1,600	684	544	654	1,250	1,030	709	533	427
MIN	171	203	352	293	473	393	520	582	721	539	411	340
CFSM	2.01	4.21	4.88	7.35	6.28	4.73	6.13	11.0	9.58	6.39	5.08	4.09
IN.	2.33	4.70	5.63	8.47	6.53	5.45	6.83	12.66	10.69	7.36	5.86	4.56
AC-FT	11,450	23,140	27,740	41,730	32,200	26,860	33,670	62,380	52,660	36,280	28,860	22,470

CAL YR 1970 TOTAL 163,826 MEAN 449 MAX 1,940 MIN 171 CFSM 4.86 IN 65.96 AC-FT 324,900
WTR YR 1971 TOTAL 201,377 MEAN 552 MAX 1,600 MIN 171 CFSM 5.97 IN 81.07 AC-FT 399,400

14158790 Smith River above Smith River Reservoir, near Belknap Springs, Oreg.

LOCATION.--Lat 44°20'05", long 122°02'45", in SW¼SW¼ sec. 24, T.14 S., R.6 E., Linn County, Willamette National Forest, on right bank 200 ft upstream from Smith River Reservoir, 0.7 mile downstream from Browder Creek, 10 miles north of town of Belknap Springs, and at mile 4.4.

DRAINAGE AREA.--16.2 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,610.00 ft above mean sea level (levels by Eugene Water and Electric Board). Prior to Sept. 10, 1964, at datum 1.56 ft higher.

AVERAGE DISCHARGE.--11 years, 92.8 cfs (77.79 inches per year, 67,230 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 981 cfs Nov. 24 (gage height, 8.23 ft); minimum, 3.8 cfs Oct. 17.
Period of record: Maximum discharge, 5,160 cfs Dec. 22, 1964 (gage height, 11.9 ft, from floodmark), from rating curve extended above 560 cfs on basis of slope-area measurement of peak flow; minimum, 3.2 cfs Sept. 24-29, 1967.

REMARKS.--Records fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	34	97	61	136	59	112	193	178	107	15	59
2	4.2	34	84	51	132	56	105	280	158	103	14	73
3	4.2	32	76	45	116	53	99	390	153	97	13	38
4	4.0	31	64	40	106	50	105	402	164	90	13	26
5	4.6	48	107	38	89	43	134	314	180	84	12	21
6	6.1	57	154	35	78	40	168	253	210	77	11	19
7	5.0	62	255	33	71	40	162	298	230	70	11	16
8	4.6	122	197	51	66	38	166	386	208	67	10	14
9	5.0	164	153	161	66	36	283	360	198	67	9.6	13
10	6.1	131	134	254	241	51	238	362	192	69	9.6	12
11	5.0	283	141	158	247	76	182	406	188	59	9.1	12
12	4.6	322	118	120	247	105	152	482	196	56	8.7	11
13	4.4	196	103	99	259	86	136	515	207	55	8.3	10
14	4.2	140	93	87	256	74	130	402	210	55	8.3	9.6
15	4.0	122	92	281	298	63	134	347	192	55	8.3	8.7
16	4.0	226	94	509	214	57	128	309	180	53	7.9	8.3
17	3.8	166	80	811	166	51	116	238	166	50	7.9	7.5
18	6.7	180	71	771	140	48	105	197	194	47	7.5	7.5
19	6.4	199	63	790	116	46	99	194	210	42	7.5	7.1
20	12	173	60	549	99	44	103	189	206	39	7.1	6.7
21	22	141	54	336	88	46	92	176	214	35	7.5	6.7
22	31	115	49	229	80	89	86	202	220	31	11	6.4
23	134	349	45	173	71	176	83	266	195	28	7.9	6.4
24	89	810	42	144	94	232	77	333	161	25	7.1	6.4
25	51	496	39	122	92	186	78	362	285	24	7.1	13
26	34	295	37	107	83	199	101	399	196	22	6.7	15
27	29	201	36	94	78	166	124	381	156	21	6.7	11
28	28	152	37	88	67	140	126	393	130	19	6.7	24
29	28	126	36	83	------	130	138	358	112	18	6.4	33
30	29	112	57	89	------	140	152	274	108	17	7.1	28
31	32	------	81	120	------	126	------	212	------	16	16	------
TOTAL	610.3	5,519	2,749	6,529	3,796	2,746	3,914	9,873	5,597	1,598	289.0	529.3
MEAN	19.7	184	88.7	211	136	88.6	130	318	187	51.5	9.32	17.6
MAX	134	810	255	811	298	232	283	515	285	107	16	73
MIN	3.8	31	36	33	66	36	77	176	108	16	6.4	6.4
CFSM	1.22	11.4	5.48	13.0	8.40	5.47	8.02	19.6	11.5	3.18	.58	1.09
IN.	1.40	12.67	6.31	14.99	8.72	6.31	8.99	22.67	12.85	3.67	.66	1.22
AC-FT	1,210	10,950	5,450	12,950	7,530	5,450	7,760	19,580	11,100	3,170	573	1,050

CAL YR 1970 TOTAL 31,987.5 MEAN 87.6 MAX 810 MIN 3.6 CFSM 5.41 IN 73.45 AC-FT 63,450
WTR YR 1971 TOTAL 43,749.6 MEAN 120 MAX 811 MIN 3.8 CFSM 7.41 IN 100.46 AC-FT 86,780

PEAK DISCHARGE (BASE, 800 CFS).--Nov. 24 (0400) 981 cfs (8.23 ft); Jan. 19 (1500) 897 cfs (8.11 ft).

14158795 Smith River Reservoir near Belknap Springs, Oreg.

LOCATION.--Lat 44°18'20", long 122°02'40", in SW¼SW¼ sec.36, T.14 S., R.6 E., Linn County, Willamette National Forest, in intake tower near left end of Smith River Dam on Smith River, 800 ft upstream from Bunchgrass Creek, 8 miles north of town of Belknap Springs, and at mile 2.1.

DRAINAGE AREA.--18.2 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Telemark with equipment to transmit elevations at 15-minute intervals. Datum of gage is at mean sea level (levels by Eugene Water and Electric Board).

EXTREMES.--Current year: Maximum contents, 14,800 acre-ft Oct. 19 (elevation, 2,603.97 ft); minimum, 10,800 acre-ft Feb. 16 (elevation, 2,577.95 ft).

Period of record: Maximum contents, 15,200 acre-ft Dec. 22, 1964 (elevation, 2,606.5 ft); minimum, 5,700 acre-ft Apr. 11, 14, 1964 (elevation, 2,532.90 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete spillway completed in 1963 by Eugene Water and Electric Board; storage began Mar. 18, 1963. Total capacity is 15,000 acre-ft and usable capacity is 9,900 acre-ft between elevations 2,525.0 (minimum power pool and 2,605.0 ft (top of spillway gates). Storage of 5,100 acre-ft below elevation 2,525.0 ft not normally available for release. Water used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and area-volume curves furnished by Eugene Water and Electric Board.

MONTHEND ELEVATIONS AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,602.19	14,500	-
Oct. 31	2,601.08	14,300	-200
Nov. 30	2,595.99	13,500	-800
Dec. 31	2,590.98	12,700	-800
CAL YR 1970	-	-	+1,100
Jan. 31	2,578.69	10,900	-1,800
Feb. 28	2,578.33	10,900	0
Mar. 31	2,587.72	12,200	+1,300
Apr. 30	2,597.94	13,800	+1,600
May 31	2,597.54	13,700	-100
June 30	2,598.35	13,800	+100
July 31	2,600.43	14,200	+400
Aug. 31	2,599.96	14,100	-100
Sept.30	2,600.70	14,200	+100
WTR YR 1971	-	-	-300

14158850 McKenzie River below Trail Bridge Dam, near Belknap Springs, Oreg.

LOCATION.--Lat 44°16'05", long 122°02'55", in T.15 S., R.6 E. (unsurveyed), Linn County, Willamette National Forest, on left bank 0.4 mile downstream from Trail Bridge Dam, 0.5 mile upstream from Anderson Creek, 5 miles north of town of Belknap Springs, and at mile 81.5.

DRAINAGE AREA.--184 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft above mean sea level (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft higher.

AVERAGE DISCHARGE.--12 years, 1,034 cfs (76.31 inches per year, 749,100 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,860 cfs Jan. 19 (gage height, 9.14 ft); minimum, 560 cfs Oct. 6-9, 13, 14, 18.
Period of record: Maximum discharge, 11,200 cfs Dec. 22, 1964 (gage height, 12.45 ft), from rating curve extended above 3,700 cfs on basis of slope-area measurement of peak flow; minimum, 185 cfs Feb. 3, 1963; minimum daily, 425 cfs Nov. 23, 1964.

REMARKS.--Records fair. Flow regulated since 1963 by Smith River Reservoir (see station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge reregulating reservoir upstream. Water is diverted from McKenzie River in SW¼ sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	639	691	1,250	989	1,490	1,110	1,260	1,340	1,760	1,390	1,050	1,060
2	646	688	1,290	914	1,400	1,090	1,250	1,500	1,680	1,310	1,050	1,010
3	698	683	1,280	902	1,280	1,150	1,190	1,560	1,680	1,340	1,050	988
4	700	753	1,180	858	1,260	1,100	1,290	1,670	1,660	1,300	1,050	923
5	658	756	1,210	880	1,340	1,040	1,190	1,650	1,660	1,240	1,030	958
6	608	781	1,180	851	1,220	1,070	1,260	1,610	1,720	1,280	1,030	962
7	623	790	1,480	826	1,160	996	1,300	1,650	1,710	1,240	1,030	935
8	620	857	1,290	870	1,160	1,020	1,270	1,820	1,670	1,190	1,030	934
9	656	914	1,260	1,050	1,120	1,030	1,470	1,820	1,670	1,240	1,030	934
10	692	851	1,160	1,250	1,510	1,070	1,440	1,860	1,650	1,270	1,030	935
11	651	1,040	1,150	1,200	1,500	1,120	1,400	1,870	1,600	1,300	1,010	934
12	629	1,210	1,080	1,150	1,540	1,150	1,350	2,060	1,630	1,260	989	904
13	587	1,030	1,070	1,150	1,530	1,130	1,250	2,300	1,630	1,310	1,040	903
14	596	941	1,040	1,160	1,550	1,110	1,260	2,050	1,620	1,280	996	904
15	676	921	1,080	1,500	1,680	1,070	1,330	2,010	1,580	1,280	968	903
16	681	1,060	1,160	1,740	1,560	1,050	1,320	2,010	1,590	1,220	1,030	902
17	646	1,100	1,130	2,930	1,430	1,030	1,280	1,870	1,530	1,190	1,000	902
18	632	1,020	1,030	3,090	1,440	1,030	1,180	1,780	1,560	1,160	947	901
19	653	1,080	1,010	3,370	1,400	1,030	1,150	1,810	1,570	1,200	982	879
20	667	1,040	1,030	2,980	1,330	975	1,140	1,780	1,600	1,150	1,010	839
21	676	979	1,030	2,260	1,300	1,000	1,210	1,730	1,570	1,150	975	905
22	676	999	956	2,120	1,290	1,150	1,190	1,730	1,540	1,120	968	891
23	925	1,250	931	1,890	1,190	1,190	1,200	1,780	1,570	1,120	989	855
24	831	2,660	929	1,900	1,280	1,390	1,200	1,910	1,520	1,120	954	856
25	721	1,750	925	1,780	1,330	1,300	1,170	1,980	1,630	1,090	938	870
26	726	1,600	862	1,730	1,230	1,320	1,200	2,010	1,580	1,070	955	898
27	725	1,570	936	1,730	1,190	1,280	1,270	2,060	1,480	1,120	966	873
28	723	1,430	906	1,600	1,180	1,290	1,220	1,990	1,420	1,070	966	895
29	698	1,340	863	1,620	------	1,260	1,300	2,110	1,400	1,080	943	909
30	698	1,290	991	1,520	------	1,350	1,300	1,940	1,350	1,070	912	831
31	695	------	1,100	1,500	------	1,300	------	1,790	------	1,050	987	------
TOTAL	20,952	33,074	33,789	49,310	37,890	35,201	37,840	57,050	47,830	37,210	30,905	27,393
MEAN	676	1,102	1,090	1,591	1,353	1,136	1,261	1,840	1,594	1,200	997	913
MAX	831	2,660	1,480	3,370	1,680	1,390	1,470	2,300	1,760	1,390	1,050	1,060
MIN	587	683	862	826	1,120	975	1,140	1,340	1,350	1,050	912	831
AC-FT	41,560	65,600	67,020	97,810	75,150	69,820	75,060	113,200	94,870	73,810	61,300	54,330
MEAN†	673	1,089	1,077	1,561	1,353	1,157	1,288	1,839	1,596	1,207	995	915
CFSM†	3.66	5.92	5.85	8.48	7.35	6.29	7.00	9.99	8.67	6.56	5.41	4.97
IN.†	4.22	6.60	6.75	9.79	7.66	7.25	7.81	11.53	9.68	7.36	6.24	5.55
AC-FT†	41,360	64,800	66,220	96,010	75,150	71,120	76,660	113,100	94,970	74,210	61,200	54,430

CAL 1970 TOTAL 379,794 MEAN 1,041 MAX 3,490 MIN 587 AC-FT 753,300 MEAN† 1,042 CFSM† 5.66 IN.† 76.89 AC-FT† 754,400
WTR 1971 TOTAL 448,444 MEAN 1,229 MAX 3,370 MIN 587 AC-FT 889,500 MEAN† 1,228 CFSM† 6.67 IN.† 90.63 AC-FT† 889,200

† Adjusted for change in contents of Smith River Reservoir.

14159000 McKenzie River at McKenzie Bridge, Oreg.

LOCATION.--Lat 44°10'45", long 122°07'45", on line between NE¼ and NW¼ sec.18, T.16 S., R.6 E., Lane County, Willamette National Forest, on left bank 1.0 mile upstream from Glen Creek, 1.7 miles east of town of McKenzie Bridge, and at mile 69.9.

DRAINAGE AREA.--348 sq mi at cableway 1.2 miles upstream, where all discharge measurements are made.

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near McKenzie Bridge" August 1910 to September 1911 and October 1914 to September 1916.

GAGE.--Water-stage recorder. Datum of gage is 1,419.04 ft above mean sea level. Prior to June 2, 1932, nonrecording gage at several sites within 2 miles of present site at various datums.

AVERAGE DISCHARGE.--61 years, 1,667 cfs (1,208,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,510 cfs Jan. 18 (gage height, 5.83 ft); minimum daily, 950 cfs Oct. 13, 14.
Period of record: Maximum discharge, 19,100 cfs Dec. 22, 1964 (gage height, 10.36 ft), from rating curve extended above 7,100 cfs on basis of slope-area measurement of peak flow; minimum, 805 cfs Oct. 20, 1931.

REMARKS.--Records excellent. Flow regulated since 1963 by Smith River Reservoir (see station 14158795). No diversion above station. All records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 1248: 1911-16, 1920-25. WSP 1448: 1919. WSP 1638: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,000	1,090	2,040	1,760	2,510	1,840	2,250	2,140	2,690	2,110	1,650	1,660
2	1,000	1,090	2,040	1,600	2,350	1,780	2,200	2,460	2,560	2,020	1,640	1,610
3	1,100	1,070	2,060	1,550	2,160	1,870	2,090	2,700	2,530	2,070	1,630	1,520
4	1,100	1,140	1,900	1,470	2,100	1,800	2,180	2,860	2,520	2,030	1,630	1,430
5	1,100	1,150	1,990	1,470	2,160	1,680	2,140	2,730	2,520	1,970	1,590	1,440
6	1,000	1,200	2,070	1,420	1,990	1,710	2,280	2,600	2,650	2,010	1,590	1,450
7	970	1,210	2,650	1,380	1,900	1,630	2,300	2,700	2,660	1,970	1,580	1,410
8	970	1,380	2,380	1,520	1,890	1,640	2,230	3,050	2,580	1,910	1,570	1,410
9	1,000	1,530	2,230	2,160	1,830	1,670	2,590	2,980	2,580	1,970	1,570	1,400
10	1,100	1,410	2,020	2,790	2,770	1,780	2,530	2,980	2,550	1,980	1,570	1,400
11	1,100	1,830	2,040	2,410	2,740	2,010	2,410	3,050	2,480	2,010	1,550	1,400
12	1,000	2,350	1,900	2,160	2,740	2,130	2,270	3,360	2,510	1,960	1,530	1,370
13	950	1,800	1,850	2,030	2,760	2,040	2,110	3,720	2,530	2,010	1,570	1,360
14	950	1,550	1,790	1,970	2,740	1,990	2,100	3,300	2,550	1,960	1,540	1,360
15	1,100	1,470	1,870	2,670	3,120	1,890	2,180	3,190	2,450	1,960	1,470	1,350
16	1,100	1,690	2,030	3,680	2,830	1,830	2,170	3,160	2,460	1,890	1,540	1,350
17	1,100	1,710	1,950	6,950	2,520	1,770	2,090	2,910	2,350	1,840	1,530	1,340
18	1,000	1,650	1,780	7,250	2,460	1,750	1,950	2,740	2,420	1,800	1,450	1,340
19	1,000	1,760	1,740	7,030	2,350	1,740	1,890	2,760	2,460	1,840	1,490	1,330
20	1,030	1,720	1,720	5,740	2,210	1,670	1,870	2,740	2,490	1,780	1,520	1,270
21	1,050	1,590	1,700	4,280	2,130	1,690	1,930	2,630	2,460	1,770	1,480	1,340
22	1,070	1,580	1,600	3,770	2,100	2,060	1,890	2,650	2,420	1,740	1,470	1,330
23	1,400	2,240	1,540	3,390	1,970	2,390	1,870	2,770	2,450	1,720	1,490	1,290
24	1,430	5,640	1,520	3,320	2,210	2,840	1,870	2,980	2,350	1,720	1,450	1,290
25	1,210	3,640	1,500	3,140	2,280	2,630	1,850	3,110	2,670	1,690	1,420	1,330
26	1,160	2,970	1,420	3,000	2,100	2,670	1,890	3,190	2,510	1,670	1,440	1,370
27	1,140	2,770	1,480	2,940	2,020	2,510	2,020	3,230	2,310	1,720	1,450	1,330
28	1,120	2,450	1,490	2,720	1,960	2,440	1,950	3,150	2,180	1,680	1,440	1,370
29	1,100	2,240	1,440	2,690	------	2,370	2,020	3,250	2,140	1,680	1,420	1,440
30	1,100	2,160	1,660	2,520	------	2,510	2,040	3,000	2,070	1,680	1,380	1,310
31	1,100	------	2,010	2,530	------	2,390	------	2,760	------	1,650	1,480	------
TOTAL	33,550	57,080	57,410	93,310	64,900	62,720	63,160	90,850	74,100	57,810	47,130	41,600
MEAN	1,082	1,903	1,852	3,010	2,318	2,023	2,105	2,931	2,470	1,865	1,520	1,387
MAX	1,430	5,640	2,650	7,250	3,120	2,840	2,590	3,720	2,690	2,110	1,650	1,660
MIN	950	1,070	1,420	1,380	1,830	1,630	1,850	2,140	2,070	1,650	1,380	1,270
AC-FT	66,550	113,200	113,900	185,100	128,700	124,400	125,300	180,200	147,000	114,700	93,480	82,510

CAL YR 1970 TOTAL 632,220 MEAN 1,732 MAX 6,190 MIN 950 AC-FT 1,254,000
WTR YR 1971 TOTAL 743,620 MEAN 2,037 MAX 7,250 MIN 950 AC-FT 1,475,000

14159200 South Fork McKenzie River above Cougar Lake, near Rainbow, Oreg.
(Formerly published as South Fork McKenzie River above Cougar Reservoir)

LOCATION.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E. (unsurveyed), Lane County, Willamette National Forest, on right bank 100 ft upstream from Tipsoo Creek, 8 miles south of Rainbow, 9 miles southeast of town of Blue River, and at mile 10.4. Records include flow of Tipsoo Creek.

DRAINAGE AREA.--160 sq mi at cableway 0.2 mile downstream, where all discharge measurements are made.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,709.51 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--14 years, 629 cfs (53.39 inches per year, 455,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,100 cfs Jan. 18 (gage height, 14.37 ft); minimum, 200 cfs Oct. 15-17.
Period of record: Maximum discharge, 18,400 cfs Dec. 22, 1964 (gage height, 20.06 ft from floodmark), from rating curve extended above 7,600 cfs on basis of slope-area measurement of peak flow; minimum, 191 cfs Oct. 10, 11, 1966.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report. All records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 1638: Drainage area. WSP 1935: 1958(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	330	810	660	1,120	636	1,010	980	1,060	680	296	341
2	206	330	730	568	1,050	612	950	1,160	975	652	287	453
3	204	320	750	519	940	628	910	1,430	915	620	284	344
4	204	318	710	484	905	600	925	1,530	900	588	281	299
5	208	353	770	463	840	564	1,080	1,400	910	564	281	281
6	218	359	1,010	446	775	540	1,250	1,240	990	540	278	278
7	214	365	1,440	432	715	548	1,180	1,240	1,050	516	275	270
8	210	500	1,260	588	680	544	1,060	1,540	1,030	495	273	265
9	210	576	1,000	1,200	680	537	1,130	1,520	1,020	488	270	260
10	214	491	905	1,690	1,510	664	1,120	1,430	1,030	481	268	258
11	210	755	990	1,260	1,540	905	1,020	1,540	1,010	456	268	255
12	208	1,220	870	975	1,450	1,080	940	1,800	1,010	435	265	253
13	206	810	790	835	1,440	915	915	1,970	1,050	421	265	250
14	204	600	750	760	1,390	800	935	1,650	1,070	411	263	248
15	202	504	805	1,090	1,620	710	960	1,490	1,040	400	263	245
16	202	608	895	2,670	1,400	656	935	1,400	1,000	393	260	243
17	202	572	770	7,590	1,210	612	875	1,210	950	386	260	238
18	210	564	684	8,260	1,070	580	805	1,090	1,000	372	260	238
19	214	564	620	6,470	970	568	750	1,050	1,020	365	258	235
20	246	540	596	4,390	875	584	750	1,020	1,030	353	258	235
21	280	500	556	2,800	810	620	705	940	1,040	344	258	235
22	290	467	523	2,030	770	1,010	684	950	1,060	335	273	233
23	636	1,460	495	1,630	720	1,590	684	1,060	1,050	326	263	230
24	552	4,630	470	1,390	900	1,740	664	1,220	945	320	258	230
25	425	2,850	453	1,260	935	1,530	664	1,360	1,390	314	255	268
26	362	1,810	439	1,140	815	1,620	725	1,630	1,180	308	253	302
27	330	1,460	432	1,050	755	1,390	800	1,550	965	305	255	273
28	313	1,170	463	985	692	1,240	840	1,540	840	302	260	317
29	315	980	491	945	-------	1,180	830	1,480	750	296	253	390
30	325	905	556	960	-------	1,240	860	1,320	700	296	255	335
31	330	-------	830	1,110	-------	1,130	-------	1,160	-------	296	287	-------
TOTAL	8,356	26,911	22,863	56,650	28,577	27,573	26,956	41,900	29,980	13,058	8,283	8,302
MEAN	270	897	738	1,827	1,021	889	899	1,352	999	421	267	277
MAX	636	4,630	1,440	8,260	1,620	1,740	1,250	1,970	1,390	680	296	453
MIN	202	318	432	432	680	537	664	940	700	296	253	230
CFSM	1.69	5.61	4.61	11.4	6.38	5.56	5.62	8.45	6.24	2.63	1.67	1.73
IN.	1.94	6.26	5.32	13.17	6.64	6.41	6.27	9.74	6.97	3.04	1.93	1.93
AC-FT	16,570	53,380	45,350	112,400	56,680	54,690	53,470	83,110	59,470	25,900	16,430	16,470

CAL YR 1970 TOTAL 232,219 MEAN 636 MAX 4,710 MIN 202 CFSM 3.98 IN 53.99 AC-FT 460,600
WTR YR 1971 TOTAL 299,409 MEAN 820 MAX 8,260 MIN 202 CFSM 5.13 IN 69.61 AC-FT 593,900

PEAK DISCHARGE (BASE, 2,500 CFS).--Nov. 24 (1230) 5,780 cfs (11.05 ft); Jan. 18 (0200) 10,100 cfs (14.37 ft).

14159400 Cougar Lake near Rainbow, Oreg.
(Formerly published as Cougar Reservoir near Rainbow)

LOCATION.--Lat 44°07'40", long 122°14'25", in SE¼SE¼ sec.31, T.16 S., R.5 E., Lane County, Willamette National Forest, in intake tower near left end of Cougar Dam on South Fork McKenzie River, 2.7 miles south of Rainbow, and at mile 4.5.

DRAINAGE AREA.--207 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 209,900 acre-ft June 25 (elevation, 1,691.70 ft); minimum, 62,100 acre-ft Dec. 20 (elevation, 1,529.13 ft).

Period of record: Maximum contents, 214,000 acre-ft July 13, 1966 (elevation, 1,694.93 ft); minimum, 33,690 acre-ft Oct. 31 to Nov. 2, 1965 (elevation, 1,475.40 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete spillway completed in 1963 by the Corps of Engineers; storage began September 1963. Total capacity is 219,100 acre-ft and usable capacity is 164,800 acre-ft between elevations 1,516 (minimum power pool) and 1,699 ft. Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,510	50,920	1,650	162,300
1,550	75,940	1,695	214,000
1,600	114,800		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142,400	101,200	78,080	63,700	113,800	121,800	156,200	182,300	209,400	209,400	207,300	183,400
2	141,200	100,000	71,780	63,710	112,100	121,900	156,900	183,700	209,300	209,300	207,300	182,900
3	139,400	99,080	68,430	63,930	107,400	122,200	157,400	186,200	209,300	209,000	207,300	181,900
4	137,900	97,780	65,050	64,020	105,400	122,200	158,000	188,600	209,300	208,700	207,200	180,900
5	136,400	96,590	63,480	64,040	103,100	122,600	159,100	190,500	209,300	208,400	207,100	179,800
6	134,900	95,400	62,940	64,020	101,700	123,000	160,700	192,000	209,300	208,300	207,000	178,700
7	133,400	94,210	64,080	63,960	100,100	123,500	162,100	193,500	209,300	208,500	207,000	177,500
8	131,800	93,550	63,840	64,010	99,270	124,000	163,000	195,900	209,300	208,900	206,900	176,300
9	130,300	93,150	64,280	65,660	98,900	124,800	164,400	198,100	209,300	209,100	206,800	175,200
10	128,800	92,600	64,440	68,790	101,200	126,200	165,600	200,000	209,400	208,900	206,700	174,000
11	127,200	93,140	64,850	70,170	103,500	128,500	166,700	202,300	209,300	208,700	206,600	172,700
12	125,700	95,040	64,910	70,510	105,600	130,300	167,300	204,400	209,400	208,400	205,900	171,400
13	124,100	95,310	64,680	69,250	107,500	131,000	168,300	205,800	209,400	208,000	204,700	170,200
14	122,500	94,800	64,450	64,730	109,400	132,000	169,300	205,900	209,400	208,200	203,600	168,900
15	120,900	93,970	64,460	64,080	112,300	133,300	170,900	206,300	209,300	208,300	202,500	167,700
16	119,300	93,580	64,760	66,420	113,100	134,100	172,100	206,500	209,300	208,400	201,300	166,400
17	117,700	92,950	64,620	97,010	113,900	134,800	172,700	206,800	209,300	208,400	200,200	165,100
18	116,200	92,300	64,130	122,700	115,000	135,400	173,400	207,000	209,300	208,400	199,000	163,800
19	114,500	89,720	63,400	150,800	115,500	136,000	174,200	207,200	209,300	208,400	197,900	162,500
20	113,100	88,060	62,610	155,500	115,700	136,700	175,400	207,200	209,400	208,300	196,700	161,200
21	111,800	85,850	62,190	159,400	115,800	137,400	176,200	207,100	209,400	208,200	195,500	159,900
22	110,500	83,470	62,390	154,400	115,800	139,400	177,100	207,900	209,400	208,100	194,400	158,600
23	110,500	83,780	62,510	147,300	117,000	142,400	178,100	208,800	209,400	208,000	193,300	157,300
24	110,300	95,760	62,550	139,700	119,000	145,900	178,900	209,400	209,400	207,800	192,200	155,900
25	109,600	100,500	62,560	133,800	121,000	148,000	179,700	209,400	209,900	207,700	191,000	154,900
26	108,600	97,220	62,550	129,500	121,800	149,700	179,900	209,500	209,600	207,500	189,900	153,800
27	107,400	97,370	62,590	124,900	121,900	150,700	180,200	209,500	209,500	207,400	188,700	152,600
28	106,200	95,130	62,760	121,900	121,800	151,600	180,600	209,500	209,600	207,400	187,500	151,600
29	105,000	89,550	62,880	118,900	------	152,700	181,000	209,400	209,500	207,400	186,300	150,800
30	103,700	83,950	63,280	116,900	------	154,000	181,500	209,400	209,500	207,300	185,200	149,700
31	102,500	------	63,710	115,300	------	155,300	------	209,400	------	207,300	184,100	------
MAX	142,400	101,200	78,080	159,400	121,900	155,300	181,500	209,500	209,900	209,400	207,300	183,400
MIN	102,500	83,470	62,190	63,700	98,900	121,800	156,200	182,300	209,300	207,300	184,100	149,700
(†)	1,585.29	1,561.24	1,531.70	1,600.66	1,608.08	1,643.19	1,667.70	1,691.30	1,691.41	1,689.65	1,670.04	1,637.68
(‡)	-41,400	-18,550	-20,240	+51,590	+6,500	+33,500	+26,200	+27,900	+100	-2,200	-23,200	-34,400

CAL YR 1970 MAX 208,400 MIN 62,190 AC-FT ‡ +3,900
WTR YR 1971 MAX 209,900 MIN 62,190 AC-FT ‡ +5,800

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14159500 South Fork McKenzie River near Rainbow, Oreg.

LOCATION.--Lat 44°08'10", long 122°14'50", in NE¼ sec.31, T.16 S., R.5 E., Lane County, Willamette National Forest, on right bank 0.2 mile upstream from Cougar Creek, 0.6 mile downstream from Cougar Dam, 2 miles south of Rainbow, and at mile 3.9.

DRAINAGE AREA.--208 sq mi.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,236.42 ft above mean sea level (Bureau of Public Roads bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft upstream at datum 0.80 ft higher.

AVERAGE DISCHARGE.--24 years, 888 cfs (57.98 inches per year, 643,400 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,320 cfs Jan. 22 (gage height, 5.37 ft); minimum, 59 cfs July 15;(minimum daily, 124 cfs Jan. 20.

Period of record: Maximum discharge, 17,600 cfs Dec. 11, 1956 (gage height, 8.66 ft), from rating curve extended above 8,100 cfs; maximum gage height, 8.90 ft Dec. 22, 1955 (backwater from debris); minimum discharge, 17 cfs Nov. 18, 1965; minimum daily, 115 cfs Aug. 18, 1965.

Maximum discharge, 24,500 cfs Dec. 28, 1945 (gage height, 8.8 ft, from floodmarks, at Corps of Engineers gage at site 40 ft upstream at datum 0.80 ft higher; gage height at present site and datum, about 9.3 ft), computed by Corps of Engineers.

REMARKS.--Records good. Flow regulated since 1963 by Cougar Lake (see station 14159400), usable capacity, 165,000 acre-ft. No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 1638: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	910	1,010	3,920	870	2,100	744	870	832	1,250	804	364	838
2	910	1,020	3,920	712	2,090	704	860	830	1,140	805	364	842
3	910	870	2,530	524	3,370	668	860	828	1,050	805	360	840
4	910	1,020	2,470	536	2,100	752	860	826	1,040	806	364	840
5	910	1,030	1,750	536	2,090	485	860	823	1,040	774	364	844
6	920	1,030	1,590	536	1,590	475	860	821	1,160	630	364	843
7	920	1,040	1,350	530	1,580	475	860	818	1,240	478	364	847
8	920	1,050	1,750	800	1,220	475	860	817	1,190	363	368	852
9	920	1,050	1,090	1,100	1,000	336	860	814	1,190	502	364	855
10	930	980	1,100	1,090	1,000	340	860	813	1,170	633	364	854
11	930	980	1,100	1,140	980	336	860	809	1,150	629	364	863
12	930	1,050	1,090	1,160	980	680	776	1,290	1,150	632	638	863
13	940	1,120	1,100	1,640	970	920	674	1,960	1,220	633	808	864
14	940	1,140	1,100	3,090	960	644	662	1,960	1,270	366	816	871
15	950	1,150	1,100	1,890	960	460	415	1,700	1,180	368	816	873
16	950	1,150	1,100	860	1,320	460	632	1,600	1,130	435	808	877
17	950	1,150	1,100	138	1,110	455	776	1,330	1,030	440	816	884
18	960	1,170	1,090	133	840	455	776	1,170	1,180	440	816	887
19	970	2,000	1,090	130	950	455	530	1,170	1,180	440	816	888
20	970	1,560	1,100	124	940	455	405	1,230	1,150	440	816	894
21	980	1,750	880	1,700	950	455	396	1,100	1,200	440	822	896
22	980	1,770	524	5,090	940	590	405	797	1,180	440	822	889
23	960	2,210	524	5,490	344	900	415	791	1,210	440	824	895
24	980	1,650	524	5,490	344	900	415	1,210	1,040	440	822	904
25	990	1,710	524	4,540	336	1,250	430	1,670	1,550	440	825	904
26	980	4,020	506	3,540	668	1,500	832	1,980	1,500	440	827	907
27	990	2,260	490	3,540	930	1,460	834	1,880	1,130	405	827	911
28	990	2,310	506	2,620	870	1,260	823	1,820	949	360	828	909
29	990	3,960	542	2,580	------	1,110	832	1,800	884	360	833	912
30	1,000	3,940	596	2,100	------	1,080	832	1,560	802	364	833	909
31	1,010	------	1,010	2,100	------	870	------	1,350	------	364	836	------
TOTAL	29,500	48,150	39,066	56,329	33,532	22,149	21,330	38,399	34,555	15,916	20,253	26,255
MEAN	952	1,605	1,260	1,817	1,198	714	711	1,239	1,152	513	653	875
MAX	1,010	4,020	3,920	5,490	3,370	1,500	870	1,980	1,550	806	836	912
MIN	910	870	490	124	336	336	396	791	802	360	360	838
AC-FT	58,510	95,510	77,490	111,700	66,510	43,930	42,310	76,160	68,540	31,570	40,170	52,080
MEAN†	278	1,293	931	2,656	1,315	1,259	1,151	1,693	1,154	478	276	297
CFSM†	1.34	6.22	4.48	12.77	6.32	6.05	5.53	8.14	5.55	2.30	1.33	1.43
IN.†	1.54	6.94	5.16	14.72	6.58	6.98	6.18	9.39	6.19	2.65	1.53	1.59
AC-FT†	17,110	76,960	57,250	163,300	73,010	77,430	68,510	104,100	68,640	29,370	16,970	17,680

CAL YR 1970 TOTAL 311,307 MEAN 853 MAX 4,960 MIN 252 AC-FT 617,500 MEAN† 858 CFSM† 4.12 IN.† 56.03 AC-FT† 621,400
WTR YR 1971 TOTAL 385,434 MEAN 1,056 MAX 5,490 MIN 124 AC-FT 764,500 MEAN† 1,064 CFSM† 5.12 IN.† 69.46 AC-FT† 770,300

† Adjusted for change in contents of Cougar Lake.

14161100 Blue River below Tidbits Creek, near Blue River, Oreg.

LOCATION.--Lat 44°13'05", long 122°15'50", in SE¼NE¼ sec.36, T.15 S., R.4 E., Lane County, Willamette National Forest, on left bank 0.2 mile downstream from Tidbits Creek, 5.5 miles northeast of town of Blue River, and at mile 8.5.

DRAINAGE AREA.--45.8 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,386.90 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--8 years, 259 cfs (76.80 inches per year, 187,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,320 cfs Nov. 24, Jan. 18 (gage height, 8.16 ft); minimum, 13 cfs Oct. 16-18.
Period of record: Maximum discharge, 12,400 cfs Dec. 22, 1964 (gage height, 15.32 ft, from floodmarks), from rating curve extended above 2,800 cfs on basis of slope-area measurement of peak flow; minimum, 8.2 cfs Sept. 28, 29, Oct. 2-4, 1965.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	94	251	486	630	185	454	540	263	118	32	183
2	14	83	213	302	526	170	402	720	233	110	30	248
3	14	74	233	223	410	183	382	886	218	102	29	124
4	14	68	220	180	349	164	426	814	215	97	29	75
5	15	77	410	156	287	144	620	610	225	92	28	58
6	17	95	625	142	257	132	742	478	251	86	28	49
7	17	105	946	128	233	140	595	595	266	83	27	43
8	15	319	670	406	223	148	540	766	235	78	26	39
9	15	423	458	1,230	257	146	922	625	225	75	25	35
10	21	289	370	1,310	1,270	410	784	575	220	74	25	33
11	18	820	442	660	946	635	585	665	210	70	25	33
12	16	1,030	349	426	868	695	478	796	210	67	24	30
13	15	482	281	320	838	498	446	796	215	63	23	29
14	15	301	257	269	820	367	474	560	220	60	23	27
15	14	228	335	1,140	1,050	296	482	494	205	59	23	26
16	13	446	518	2,210	730	243	430	486	188	57	22	25
17	13	350	349	3,690	510	213	382	370	175	54	22	23
18	18	339	263	3,240	410	195	370	323	218	52	22	22
19	25	378	218	3,420	332	190	335	332	230	50	21	22
20	41	360	193	1,720	281	203	335	317	208	48	20	22
21	89	313	168	898	245	233	308	284	200	46	20	22
22	142	259	148	600	238	605	278	317	200	44	29	22
23	580	1,010	136	474	230	1,200	275	390	183	42	25	21
24	423	3,160	124	446	486	1,250	266	466	158	41	22	21
25	223	1,310	112	454	474	868	266	474	370	39	20	44
26	140	710	107	406	326	958	346	518	254	37	20	81
27	116	494	104	360	269	742	418	470	193	35	20	54
28	102	353	120	339	220	595	370	466	160	34	20	148
29	109	293	215	339	------	575	363	406	138	33	20	223
30	113	281	269	390	------	700	398	329	124	33	20	140
31	105	------	1,050	600	------	585	------	275	------	33	39	------
TOTAL	2,486	14,544	10,154	26,964	13,715	13,668	13,472	16,143	6,410	1,912	759	1,922
MEAN	80.2	485	328	870	490	441	449	521	214	61.7	24.5	64.1
MAX	580	3,160	1,050	3,690	1,270	1,250	922	886	370	118	39	248
MIN	13	68	104	128	220	132	266	275	124	33	20	21
CFSM	1.75	10.6	7.16	19.0	10.7	9.63	9.80	11.4	4.67	1.35	.53	1.40
IN.	2.02	11.81	8.25	21.90	11.14	11.10	10.94	13.11	5.21	1.55	.62	1.56
AC-FT	4,930	28,850	20,140	53,480	27,200	27,110	26,720	32,020	12,710	3,790	1,510	3,810

CAL YR 1970 TOTAL 93,982 MEAN 257 MAX 3,160 MIN 11 CFSM 5.61 IN 76.33 AC-FT 186,400
WTR YR 1971 TOTAL 122,149 MEAN 335 MAX 3,690 MIN 13 CFSM 7.31 IN 99.21 AC-FT 242,300

PEAK DISCHARGE (BASE, 2,000 CFS).--Nov. 24 (0600) 4,320 cfs (8.16 ft); Jan. 18 (0100) 4,320 cfs (8.16 ft).

14161500 Lookout Creek near Blue River, Oreg.

LOCATION.--Lat 44°12'35", long 122°15'20", in T.15 or 16 S., R.5 E. (unsurveyed), Lane County, Willamette National Forest, on left bank 6.0 miles northeast of town of Blue River, and at mile 0.5.

DRAINAGE AREA.--24.1 sq mi.

PERIOD OF RECORD.--August 1949 to September 1955, September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,377.76 ft (revised) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--14 years, 132 cfs (74.38 inches per year, 95,630 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,360 cfs Jan. 18 (gage height, 6.60 ft); minimum, 8.7 cfs Oct. 16, 17.
Period of record: Maximum discharge, 6,660 cfs Dec. 22, 1964 (gage height, 8.88 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement of peak flow; minimum, 6.4 cfs Nov. 25-30, 1952.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	51	137	182	238	123	254	218	118	58	20	64
2	9.5	50	115	129	222	118	222	286	105	55	19	76
3	9.5	44	123	101	190	129	198	375	101	52	19	45
4	9.5	43	123	87	178	120	198	375	103	49	19	32
5	9.9	47	170	80	155	103	242	302	108	46	18	26
6	11	54	250	73	143	97	290	250	123	44	18	24
7	10	60	370	69	129	101	274	290	123	42	18	22
8	9.9	115	322	118	118	105	258	365	110	41	18	20
9	9.9	162	246	465	129	103	322	310	105	40	17	19
10	12	129	202	666	520	218	322	282	105	40	17	18
11	10	284	214	420	465	326	282	306	99	37	16	18
12	9.9	385	174	278	420	355	246	375	99	36	16	17
13	9.5	225	143	198	395	282	222	385	101	34	16	17
14	9.1	156	137	158	390	226	214	290	101	33	16	16
15	9.1	120	174	318	485	186	210	254	92	32	16	16
16	9.1	132	238	762	400	155	198	238	87	31	15	15
17	8.7	115	174	1,930	302	134	182	186	82	29	15	15
18	10	115	132	1,760	254	120	167	161	97	29	15	14
19	12	120	108	1,550	206	112	155	155	94	28	15	14
20	22	123	97	948	170	112	152	146	88	26	14	14
21	31	115	85	560	152	118	140	134	85	25	14	14
22	43	105	78	385	146	262	132	143	85	25	21	13
23	165	445	72	314	140	465	132	174	78	24	17	13
24	150	1,290	66	298	278	560	126	206	70	23	15	13
25	91	648	63	322	278	455	126	214	155	23	15	26
26	68	395	60	290	214	470	149	246	105	22	14	37
27	57	306	58	234	178	385	167	218	87	21	14	27
28	50	222	72	198	146	335	161	218	75	21	14	54
29	47	167	90	174	------	314	158	186	67	21	14	72
30	51	152	161	174	------	330	167	149	61	21	14	53
31	52	------	322	222	------	298	------	129	------	21	25	------
TOTAL	1,015.5	6,375	4,776	13,463	7,041	7,217	6,066	7,566	2,909	1,029	514	824
MEAN	32.8	213	154	434	251	233	202	244	97.0	33.2	16.6	27.5
MAX	165	1,290	370	1,930	520	560	322	385	155	58	25	76
MIN	8.7	43	58	69	118	97	126	129	61	21	14	13
CFSM	1.36	8.84	6.39	18.0	10.4	9.67	8.38	10.1	4.02	1.38	.69	1.14
IN.	1.57	9.84	7.37	20.78	10.87	11.14	9.36	11.68	4.49	1.59	.79	1.27
AC-FT	2,010	12,640	9,470	26,700	13,970	14,310	12,030	15,010	5,770	2,040	1,020	1,630

CAL YR 1970 TOTAL 46,503.4 MEAN 127 MAX 1,670 MIN 8.7 CFSM 5.27 IN 71.78 AC-FT 92,240
WTR YR 1971 TOTAL 58,795.5 MEAN 161 MAX 1,930 MIN 8.7 CFSM 6.68 IN 90.75 AC-FT 116,600

PEAK DISCHARGE (BASE, 1,000 CFS).--Nov. 24 (0500) 1,600 cfs (5.90 ft); Jan. 18 (0100) 2,360 cfs (6.60 ft).

14162100 Blue River Lake near Blue River, Oreg.
(Formerly published as Blue River Reservoir near Blue River)

LOCATION.--Lat 44°10'20", long 122°19'40", in SE¼SE¼ sec.16, T.16 S., R.4 E., Lane County, in intake tower near left end of Blue River Dam on Blue River, 1.4 miles north of Blue River, and at mile 1.7.

DRAINAGE AREA.--87.3 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 83,880 acre-ft May 24 (elevation, 1,351.12 ft); minimum, 2,260 acre-ft Dec. 31 (elevation, 1,164.60 ft).

Period of record: Maximum contents, 85,360 acre-ft July 29, 1969 (elevation, 1,352.68 ft); minimum observed since first filling in 1968, 1,580 acre-ft Feb. 3, 1969 (elevation, 1,156.0 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete gate and spillway section, completed in 1968 by Corps of Engineers; storage began October 1968. Total capacity is 89,520 acre-ft and usable capacity is 85,550 acre-ft between elevations 1,180 ft (minimum flood control pool) and 1,357 ft (maximum pool). Reservoir used for flood control. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,156	1,580	1,200	7,030	1,290	36,960
1,160	1,870	1,210	8,900	1,340	73,710
1,180	3,970	1,250	19,260	1,353	85,660

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,850	6,750	3,950	2,820	26,970	35,170	55,720	73,130	83,050	82,950	74,070	29,430
2	10,590	6,530	3,940	3,960	25,600	35,610	56,580	75,220	83,010	82,930	72,760	29,200
3	10,330	6,260	4,110	3,970	23,970	35,940	57,060	76,880	83,020	82,890	71,480	28,530
4	10,080	5,980	3,740	3,960	22,990	36,050	57,620	77,000	83,130	82,900	70,090	27,700
5	9,830	5,740	4,050	3,960	22,220	36,020	58,300	76,610	83,210	82,930	68,430	26,820
6	9,590	5,430	4,490	3,940	21,590	35,980	59,030	76,340	83,190	82,920	66,700	25,870
7	9,340	4,980	5,270	3,980	20,880	35,990	59,150	76,700	83,180	82,900	64,890	24,910
8	9,100	5,380	3,900	4,310	20,610	36,420	59,080	76,720	83,100	82,950	63,210	23,960
9	8,870	5,830	4,000	7,580	21,310	37,100	60,190	78,150	83,060	83,030	61,500	23,010
10	8,710	5,260	3,930	12,200	25,440	38,900	60,920	78,470	83,000	83,090	59,800	22,410
11	8,540	6,790	3,920	10,560	27,120	40,760	61,050	79,080	83,010	83,100	58,120	22,000
12	8,360	8,060	4,000	7,080	26,900	42,020	61,310	80,140	83,030	83,110	56,520	21,590
13	8,180	6,780	4,000	4,850	26,750	42,380	62,090	80,450	83,120	83,120	54,790	21,190
14	7,990	6,300	3,940	3,720	26,930	42,980	63,120	80,270	82,950	83,130	53,120	20,770
15	7,800	5,500	3,790	7,450	27,370	43,830	64,150	80,430	82,940	83,130	51,450	20,360
16	7,620	5,220	3,700	15,560	26,900	44,410	64,840	80,600	82,900	83,040	49,740	19,950
17	7,440	4,320	4,000	29,380	27,200	44,970	65,240	80,730	82,860	83,010	48,110	19,560
18	7,270	4,000	3,950	47,860	28,220	45,700	65,670	80,930	82,980	82,910	46,410	19,150
19	7,140	4,020	4,000	56,440	29,010	46,390	66,120	81,150	82,990	82,820	44,680	18,770
20	7,070	4,020	3,960	62,570	29,580	47,160	66,700	81,090	83,030	82,790	42,970	18,360
21	7,000	3,950	3,970	62,250	30,030	48,040	67,250	81,260	83,050	82,730	41,320	17,950
22	6,980	3,970	3,990	56,480	30,690	50,040	67,830	82,140	83,070	82,660	39,720	17,540
23	8,300	4,670	4,010	50,580	31,550	51,910	68,420	83,290	83,030	82,580	38,310	16,990
24	9,180	15,000	3,960	44,570	33,520	52,170	69,040	83,780	82,980	82,350	37,240	16,390
25	9,230	16,960	3,980	40,770	34,920	52,170	69,660	83,660	83,130	81,850	36,180	15,890
26	8,880	13,500	3,980	37,730	35,120	52,610	70,340	83,590	83,000	81,270	35,140	15,500
27	8,420	10,490	3,920	32,950	35,010	52,680	70,850	83,480	83,000	80,430	34,050	14,940
28	7,880	7,250	3,850	30,450	34,910	53,640	71,160	83,400	82,970	79,220	32,980	14,740
29	7,350	4,000	4,000	28,630	-------	54,370	71,450	83,300	82,940	77,920	31,900	14,830
30	7,100	3,980	3,160	27,700	-------	54,870	71,750	83,190	82,950	76,630	30,830	14,580
31	6,940	-------	2,280	27,580	-------	55,170	-------	83,080	-------	75,340	29,890	-------
MAX	10,850	16,960	5,270	62,570	35,120	55,170	71,750	83,780	83,210	83,130	74,070	29,430
MIN	6,940	3,950	2,280	2,820	20,610	35,170	55,720	73,130	82,860	75,340	29,890	14,580
(†)	1,198.48	1,180.09	1,164.74	1,271.70	1,286.37	1,317.27	1,337.77	1,350.28	1,350.14	1,341.84	1,276.66	1,234.24
(‡)	-4,170	-2,960	-1,700	+25,300	+7,330	+20,260	+16,580	+11,330	-130	-7,610	-45,450	-15,310

CAL YR 1970 MAX 83,040 MIN 2,280 AC-FT ‡ -1,790
WTR YR 1971 MAX 83,780 MIN 2,280 AC-FT ‡ +3,470

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14162200 Blue River at Blue River, Oreg.

LOCATION.--Lat 44°09'45", long 122°19'55", in NW¼SE¼ sec.21, T.16 S., R.4 E., Lane County, on right bank 0.3 mile upstream from Simmonds Creek, 0.7 mile north of town of Blue River, 0.8 mile downstream from Blue River Dam, and at mile 0.9.

DRAINAGE AREA.--87.7 sq mi.

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft above mean sea level (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft higher.

AVERAGE DISCHARGE.--5 years, 464 cfs (336,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,940 cfs Jan. 22, 24 (gage height, 7.98 ft); minimum, 22 cfs Feb. 10, 11; minimum daily discharge, 51 cfs Jan. 18, Feb. 10.

Period of record: Maximum discharge, 7,270 cfs Feb. 23, 1968 (gage height, 8.93 ft); minimum discharge, 0.80 cfs Oct. 8, 10, 11, 1968; minimum daily discharge, 3.7 cfs Oct. 8, 1968.

REMARKS.--Records good. Flow regulated since 1968 by Blue River Lake (see station 14162100). No diversion above station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceeds natural flow. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	233	570	1,160	1,330	284	892	189	456	207	667	550
2	136	230	483	1,040	1,590	194	487	99	408	204	661	550
3	136	228	523	448	1,570	331	352	620	345	192	661	546
4	134	225	656	373	1,200	408	501	1,260	331	163	711	541
5	134	222	661	321	994	388	541	1,190	335	166	850	537
6	134	272	994	294	880	370	727	910	444	155	886	555
7	132	332	1,340	251	868	370	940	784	460	105	886	565
8	130	329	1,740	501	605	189	964	772	424	105	880	560
9	114	512	862	868	140	96	970	772	412	105	880	555
10	102	670	722	814	51	94	970	772	412	105	874	377
11	100	675	844	2,170	898	474	970	778	335	105	874	269
12	100	1,240	705	2,440	1,630	970	630	778	307	107	874	269
13	99	1,340	560	1,630	1,460	970	349	1,170	388	107	874	266
14	99	680	537	1,000	1,320	700	324	1,010	452	105	886	266
15	97	655	700	245	1,620	317	324	749	342	105	886	260
16	97	695	1,070	86	1,620	314	460	755	338	105	880	251
17	97	806	832	69	844	234	496	575	304	105	874	251
18	96	600	555	51	307	105	432	456	352	136	898	248
19	96	545	444	60	310	105	377	487	373	130	898	248
20	96	532	388	54	310	105	321	570	321	100	886	257
21	148	508	345	1,960	314	107	294	384	321	100	880	260
22	217	406	300	3,900	189	123	245	96	321	100	868	257
23	308	1,390	269	3,860	110	784	234	96	321	100	738	335
24	389	1,290	251	3,890	78	1,990	210	528	297	180	560	377
25	396	1,500	228	2,980	328	1,980	197	826	615	304	555	377
26	389	3,040	220	2,520	640	1,730	281	898	501	335	550	377
27	382	2,500	204	3,090	683	1,640	460	814	321	452	555	373
28	375	2,080	288	1,930	555	880	487	790	297	635	565	370
29	368	1,930	528	1,590	------	744	492	711	237	672	560	370
30	277	620	650	1,180	------	988	510	590	210	667	555	370
31	233	------	1,170	1,050	------	1,070	------	514	------	667	550	------
TOTAL	5,749	26,285	19,639	41,825	22,444	19,054	15,437	20,943	10,980	6,824	23,722	11,387
MEAN	185	876	634	1,349	802	615	515	676	366	220	765	380
MAX	396	3,040	1,740	3,900	1,630	1,990	970	1,260	615	672	898	565
MIN	96	222	204	51	51	94	197	96	210	100	550	248
AC-FT	11,400	52,140	38,950	82,960	44,520	37,790	30,620	41,540	21,780	13,540	47,050	22,590

CAL YR 1970 TOTAL 167,315 MEAN 458 MAX 3,860 MIN 26 AC-FT 331,900
WTR YR 1971 TOTAL 224,289 MEAN 614 MAX 3,900 MIN 51 AC-FT 444,900

14162500 McKenzie River near Vida, Oreg.

LOCATION.--Lat 44°07'30", long 122°28'10", in NE¼NE¼ sec.5, T.17 S., R.3 E., Lane County, on right bank 0.4 mile downstream from Mason Creek, 5.4 miles east of Vida, and at mile 47.7.

DRAINAGE AREA.--930 sq mi at cableway 0.4 mile downstream, where all discharge measurements are made.

PERIOD OF RECORD.--July 1910 to March 1911 (published as "at Martins Rapids, near Vida"), September 1924 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 855.71 ft above mean sea level (levels by Eugene Water and Electric Board). July 1. 1910, to Mar. 31, 1911, nonrecording gage at site 3 miles downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft upstream at datum 0.15 ft lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft lower.

AVERAGE DISCHARGE.--47 years (1924-71), 4,008 cfs (2,904,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 24,000 cfs Jan. 18 (gage height, 8.50 ft); minimum, 2,070 cfs Nov. 3.

Period of record: Maximum discharge, 64,400 cfs Dec. 28, 1945 (gage height, 17.70 ft, site and datum then in use), from rating curve extended above 32,000 cfs; minimum, 1,260 cfs Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931.

Flood in January 1923 reached a stage of 17.2 ft, from floodmarks (discharge, 62,000 cfs).

REMARKS.--Records good. Flow regulated since 1963 by Smith River Reservoir (see sta 14158795) and Cougar Lake (see sta 14159400), and since 1968 by Blue River Lake (see sta 14162100). No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report. All records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 1124: 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,360	2,920	7,880	5,700	7,590	4,000	5,580	4,380	5,680	4,080	3,290	3,920
2	2,370	2,890	7,720	4,880	7,600	3,690	5,110	4,630	5,260	4,000	3,260	4,170
3	2,400	2,690	6,970	3,820	8,370	4,030	4,940	5,470	4,950	4,000	3,240	3,780
4	2,420	2,910	6,810	3,530	6,970	4,220	4,990	6,380	4,940	3,930	3,270	3,530
5	2,420	2,990	6,190	3,360	6,750	3,640	5,320	6,140	4,870	3,820	3,360	3,490
6	2,390	3,110	6,820	3,240	5,960	3,550	5,650	5,550	5,220	3,640	3,400	3,510
7	2,380	3,190	7,670	3,100	5,650	3,510	5,680	5,470	5,430	3,440	3,380	3,460
8	2,380	3,550	8,010	4,160	5,060	3,440	5,450	6,060	5,240	3,170	3,370	3,420
9	2,390	4,120	6,130	7,160	4,230	3,200	6,100	5,930	5,240	3,310	3,340	3,400
10	2,470	4,040	5,490	8,180	6,070	3,880	6,150	5,850	5,210	3,530	3,320	3,220
11	2,390	4,930	5,790	8,040	6,660	5,320	5,780	5,980	5,020	3,530	3,290	3,090
12	2,370	6,930	5,290	7,750	7,170	6,530	5,360	6,840	5,040	3,480	3,480	3,060
13	2,330	5,770	5,010	6,840	6,990	6,190	4,750	8,400	5,240	3,480	3,780	3,020
14	2,300	4,530	4,910	7,300	6,670	5,290	4,570	7,760	5,450	3,190	3,790	3,020
15	2,380	4,250	5,520	7,290	7,940	4,480	4,350	7,000	5,090	3,270	3,710	3,020
16	2,410	4,580	6,670	9,170	7,660	4,160	4,550	6,980	5,010	3,230	3,750	3,000
17	2,390	4,740	5,850	17,500	6,420	3,780	4,700	6,130	4,750	3,190	3,750	2,980
18	2,390	4,470	5,060	20,300	5,290	3,530	4,500	5,550	4,990	3,150	3,680	2,980
19	2,440	5,300	4,690	17,300	5,250	3,480	4,070	5,430	5,170	3,200	3,730	2,960
20	2,560	4,890	4,540	13,400	4,930	3,470	3,770	5,600	5,090	3,100	3,740	2,900
21	2,730	4,870	4,250	11,600	4,730	3,510	3,750	5,150	5,140	3,080	3,710	2,950
22	2,930	4,720	3,560	15,400	4,570	4,790	3,650	4,580	5,090	3,020	3,760	2,970
23	3,810	7,550	3,370	15,100	3,790	7,630	3,660	4,720	5,170	2,980	3,690	2,980
24	4,160	14,700	3,280	15,000	4,170	8,760	3,660	5,690	4,830	3,040	3,470	3,040
25	3,730	10,100	3,200	13,500	4,630	8,150	3,620	6,810	6,420	3,120	3,420	3,160
26	3,430	11,900	3,080	11,300	4,740	8,450	4,120	7,610	6,140	3,120	3,420	3,310
27	3,260	10,300	3,030	11,400	4,930	7,490	4,490	7,400	5,070	3,220	3,460	3,210
28	3,160	8,490	3,250	9,260	4,610	6,750	4,410	7,190	4,550	3,330	3,500	3,330
29	3,110	9,490	3,830	8,500	------	6,420	4,440	7,180	4,330	3,340	3,480	3,710
30	3,020	8,110	4,360	7,610	------	6,860	4,490	6,570	4,100	3,350	3,420	3,330
31	2,950	------	7,050	7,450	------	6,380	------	5,810	------	3,300	3,540	------
TOTAL	84,230	173,030	165,280	288,140	165,400	158,580	141,660	190,240	153,730	104,640	108,800	97,920
MEAN	2,717	5,768	5,332	9,295	5,907	5,115	4,722	6,137	5,124	3,375	3,510	3,264
MAX	4,160	14,700	8,010	20,300	8,370	8,760	6,150	8,400	6,420	4,080	3,790	4,170
MIN	2,300	2,690	3,030	3,100	3,790	3,200	3,620	4,380	4,100	2,980	3,240	2,900
AC-FT	167,100	343,200	327,800	571,500	328,100	314,500	281,000	377,300	304,900	207,600	215,800	194,200

CAL YR 1970 TOTAL 1,487,980 MEAN 4,077 MAX 15,400 MIN 1,730 AC-FT 2,951,000
WTR YR 1971 TOTAL 1,831,650 MEAN 5,018 MAX 20,300 MIN 2,300 AC-FT 3,633,000

14163000 .Gate Creek at Vida, Oreg.

LOCATION.--Lat 44°08'45", long 122°34'15", in SW¼ sec.28, T.16 S., R.2 E., Lane County, on right bank 300 ft downstream from bridge on U.S. Highway 126, at Vida, and at mile 0.2.

DRAINAGE AREA.--47.6 sq mi.

PERIOD OF RECORD.--June 1951 to September 1957; annual maximums, water years 1958-65; August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 764.56 ft above mean sea level. June 11, 1951, to Sept. 30, 1957, water-stage recorder, and Oct. 1, 1957, to Aug. 1, 1966, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--11 years (1951-57, 1966-71), 224 cfs (63.91 inches per year, 162,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,680 cfs Jan. 18 (gage height, 8.78 ft); minimum, 18 cfs Oct. 15-17.
Period of record: Maximum discharge, 7,140 cfs Dec. 22, 1964 (gage height, 12.18 ft), from slope-area measurement of peak flow; minimum, 12 cfs Nov. 26, 27, 1952.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	51	302	446	365	235	496	208	135	59	32	99
2	19	46	272	335	325	226	428	214	111	56	30	160
3	18	42	362	269	283	322	379	220	98	54	29	78
4	18	45	377	230	301	307	361	214	87	51	28	49
5	21	56	407	205	307	256	379	190	83	50	28	40
6	26	70	495	185	295	238	372	173	77	48	28	38
7	23	63	551	180	268	280	325	165	75	46	27	33
8	20	123	443	280	247	313	310	165	71	45	27	32
9	21	240	356	480	250	295	452	151	68	49	26	30
10	27	180	308	850	572	536	449	142	69	48	25	29
11	23	410	320	750	449	798	431	140	65	44	25	30
12	20	624	275	650	379	960	421	147	63	42	24	28
13	20	317	240	500	334	703	375	154	68	41	24	27
14	19	210	255	360	328	580	334	129	66	40	24	26
15	18	163	395	700	435	516	307	124	60	40	24	25
16	18	230	617	1,300	435	438	289	173	57	40	24	24
17	18	195	449	1,800	351	375	277	144	56	38	24	24
18	30	193	338	2,400	328	337	280	124	74	37	23	23
19	35	200	272	2,200	322	334	253	120	66	37	23	23
20	46	205	245	1,300	289	358	256	114	59	36	22	22
21	61	213	215	895	271	407	241	105	55	35	24	22
22	108	190	190	654	280	757	241	99	52	33	32	22
23	240	365	170	762	289	1,160	262	94	51	33	27	22
24	281	1,130	155	840	466	1,050	289	93	51	33	24	22
25	205	666	144	905	473	798	286	94	180	32	23	51
26	155	474	137	762	361	775	277	120	112	32	22	94
27	119	680	139	584	313	645	259	103	84	32	23	54
28	91	474	200	492	274	616	232	94	74	32	24	118
29	78	365	308	431	------	588	214	89	66	31	22	193
30	67	335	452	396	------	658	205	89	63	31	24	111
31	57	------	756	400	------	596	------	91	------	32	39	------
TOTAL	1,921	8,555	10,145	22,541	9,590	16,457	9,680	4,282	2,296	1,257	801	1,549
MEAN	62.0	285	327	727	343	531	323	138	76.5	40.5	25.8	51.6
MAX	281	1,130	756	2,400	572	1,160	496	220	180	59	39	193
MIN	18	42	137	180	247	226	205	89	51	31	22	22
CFSM	1.30	5.99	6.87	15.3	7.21	11.2	6.79	2.90	1.61	.85	.54	1.08
IN.	1.50	6.69	7.93	17.62	7.49	12.86	7.57	3.35	1.79	.98	.63	1.21
AC-FT	3,810	16,970	20,120	44,710	19,020	32,640	19,200	8,490	4,550	2,490	1,590	3,070

CAL YR 1970 TOTAL 71,833 MEAN 197 MAX 1,650 MIN 17 CFSM 4.14 IN 56.14 AC-FT 142,500
WTR YR 1971 TOTAL 89,074 MEAN 244 MAX 2,400 MIN 18 CFSM 5.13 IN 69.61 AC-FT 176,700

PEAK DISCHARGE (BASE, 1,800 CFS).--Jan. 18 (time unknown) 3,680 cfs (8.78 ft).

14165000 Mohawk River near Springfield, Oreg.

LOCATION.--Lat 44°05'34", long 122°57'20", in SE¼NW¼ sec.17, T.17 S., R.2 W., Lane County, on left bank 50 ft downstream from bridge, 1.3 miles northeast of Springfield, and at mile 1.59.

DRAINAGE AREA.--177 sq mi.

PERIOD OF RECORD.--September 1935 to September 1952, October 1963 to current year. Prior to October 1935 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 442.47 ft above mean sea level. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--25 years, 544 cfs (41.74 inches per year, 394,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,740 cfs Jan. 18 (gage height, 16.41 ft); minimum, 18 cfs Oct. 16, 17.
Period of record: Maximum discharge, 13,000 cfs Dec. 22, 1964 (gage height, 22.60 ft); minimum, 8.2 cfs Sept. 9, 1967.
Flood of Dec. 22, 1955, reached a stage of 22.9 ft, from floodmark, probably affected by backwater from McKenzie River (discharge, 9,200 cfs).

REMARKS.--Records fair. Slight regulation at low flows by log ponds upstream. Many diversions for irrigation above station. Stage affected by times by backwater from McKenzie River.

REVISIONS (WATER YEARS).--WSP 1248: 1439. WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	74	1,120	2,290	878	650	1,170	473	320	145	50	173
2	25	69	1,200	1,540	830	700	1,030	450	255	140	48	236
3	26	66	1,210	1,150	809	1,100	921	448	227	130	46	158
4	25	71	1,260	977	968	1,400	836	463	205	120	46	101
5	28	106	1,040	650	980	1,130	779	450	191	110	46	81
6	35	135	1,050	600	851	1,040	734	408	185	110	44	82
7	38	123	1,110	550	752	1,110	691	373	187	100	44	72
8	32	150	1,070	950	679	1,210	674	373	177	95	42	64
9	30	335	884	1,600	590	1,130	1,180	353	165	100	42	60
10	32	278	752	3,600	707	1,420	1,450	328	165	100	40	56
11	34	560	755	2,600	670	2,550	1,360	315	157	95	38	56
12	30	953	653	1,600	649	3,460	1,280	333	150	90	38	57
13	26	557	584	1,300	609	3,010	1,090	468	165	85	38	52
14	24	335	614	1,100	600	2,410	965	435	163	80	38	50
15	23	249	884	3,000	1,400	1,970	876	340	148	75	36	49
16	19	373	1,990	4,200	1,200	1,600	831	398	141	70	36	47
17	19	328	1,810	5,500	1,000	1,320	950	320	137	70	34	42
18	38	275	1,220	6,500	900	1,130	1,100	258	159	65	34	40
19	69	273	962	6,000	800	1,020	850	237	169	65	34	38
20	57	280	854	4,400	750	933	854	233	159	60	34	38
21	72	295	755	2,600	700	863	827	221	146	60	34	38
22	98	280	635	2,200	700	1,080	773	199	139	55	48	38
23	146	554	545	1,800	700	1,810	758	193	142	55	46	37
24	237	2,090	503	1,700	1,100	1,940	731	195	141	55	40	38
25	227	2,030	465	1,900	1,200	1,740	716	237	458	55	34	48
26	253	1,610	438	1,700	1,000	1,850	668	405	341	55	34	103
27	142	2,070	453	1,500	850	1,600	614	363	213	50	34	77
28	111	1,510	614	1,400	750	1,510	563	313	180	50	36	88
29	95	1,170	1,220	1,230	------	1,320	520	295	163	50	34	260
30	86	1,060	1,550	1,060	------	1,390	498	258	152	50	32	170
31	80	------	3,890	953	------	1,370	------	219	------	50	55	------
TOTAL	2,182	18,259	32,090	68,150	23,622	46,766	26,289	10,354	5,700	2,490	1,235	2,449
MEAN	70.4	609	1,035	2,198	844	1,509	876	334	190	80.3	39.8	81.6
MAX	253	2,090	3,890	6,500	1,400	3,460	1,450	473	458	145	55	260
MIN	19	66	438	550	590	650	498	193	137	50	32	37
CFSM	.40	3.44	5.85	12.4	4.77	8.53	4.95	1.89	1.07	.45	.22	.46
IN.	.46	3.84	6.74	14.32	4.96	9.83	5.53	2.18	1.20	.52	.26	.51
AC-FT	4,330	36,220	63,650	135,200	46,850	92,760	52,140	20,540	11,310	4,940	2,450	4,860

CAL YR 1970 TOTAL 196,288 MEAN 538 MAX 5,600 MIN 12 CFSM 3.04 IN 41.25 AC-FT 389,300
WTR YR 1971 TOTAL 239,586 MEAN 656 MAX 6,500 MIN 19 CFSM 3.71 IN 50.35 AC-FT 475,200

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0730	12.41	4,650	3-12	0730	10.86	3,720
1-18	1130	16.41	6,740				

NOTE.--No gage-height record Jan. 5-18, July 2 to Aug. 31. Backwater from McKenzie River Jan. 18-28.

14165500 McKenzie River near Coburg, Oreg.

LOCATION.--Lat 44°06'45", long 123°02'45", in NE¼NE¼ sec.9, T.17 S., R.3 W., Lane County, on left bank at downstream side of Armitage Bridge, 2 miles southeast of Coburg, and at mile 7.1.

DRAINAGE AREA.--1,337 sq mi.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 392.32 ft above mean sea level. Prior to Nov. 24, 1944, nonrecording gage at same site at datum 4.00 ft higher. Nov. 25, 1944, to Feb. 28, 1965, water-stage recorder at same site at datum 4.00 ft higher.

AVERAGE DISCHARGE.--27 years, 5,840 cfs (59.32 inches per year, 4,231,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 42,300 cfs Jan. 18 (gage height, 10.17 ft); minimum, 2,220 cfs Oct. 15.

Period of record: Maximum discharge, 88,200 cfs Dec. 29, 1945 (gage height, 21.36 ft), from rating curve extended above 59,000 cfs; minimum, 1,080 cfs Aug. 19, 1966.

Flood stage of 22.2 ft was reached in December 1861, 21.8 ft in February 1890, and 20.1 ft in January 1943 (information from Corps of Engineers), all at present datum.

REMARKS.--Records good. Flow regulated since 1963 by Smith River Reservoir (see station 14158795) and Cougar Lake (see station 14159400), and since 1968 by Blue River Lake (see station 14162100). Slight diurnal fluctuation caused by logponds and powerplants upstream. Water supply for city of Eugene is diverted 10 miles upstream; small diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 1638: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,580	3,150	10,600	11,000	9,500	6,500	9,050	6,110	6,820	4,460	3,360	4,000
2	2,570	3,160	10,000	8,900	9,500	6,000	8,150	6,010	6,190	4,440	3,440	4,710
3	2,540	3,150	9,500	7,480	10,000	7,000	7,620	6,530	5,930	4,310	3,200	4,350
4	2,620	3,050	9,000	6,580	9,000	7,760	7,420	7,510	5,520	4,310	3,180	3,850
5	2,620	3,310	8,500	6,190	8,500	6,870	7,480	7,760	5,500	4,220	3,340	3,640
6	2,570	3,410	9,000	5,800	8,000	6,400	7,680	7,230	5,700	4,070	3,440	3,500
7	2,690	3,420	9,830	5,520	7,500	6,500	7,620	6,760	6,090	3,800	3,400	3,640
8	2,520	3,630	11,200	6,140	7,000	6,740	7,370	7,120	5,780	3,500	3,400	3,580
9	2,520	4,830	9,260	11,000	6,000	6,300	8,400	7,230	5,780	3,520	3,420	3,540
10	2,620	4,990	7,930	15,500	8,000	6,760	9,560	7,090	5,720	3,800	3,200	3,580
11	2,630	5,650	8,070	13,400	8,380	10,200	8,840	7,060	5,650	3,720	3,240	3,240
12	2,580	9,420	7,620	12,700	8,720	12,900	8,660	7,400	5,450	3,820	3,260	3,060
13	2,540	8,230	7,260	10,400	8,600	12,000	7,700	8,990	5,620	3,620	3,780	3,320
14	2,510	5,610	7,000	10,200	8,210	10,500	7,140	9,260	5,980	3,480	3,660	3,000
15	2,480	4,910	7,930	12,400	9,710	8,990	6,820	7,960	5,550	3,420	3,720	3,200
16	2,570	5,010	11,500	15,300	10,000	8,120	6,560	8,150	5,450	3,420	3,780	3,200
17	2,560	5,350	10,800	29,800	9,500	7,340	7,140	7,510	5,260	3,340	3,660	3,200
18	2,670	5,040	8,630	39,000	7,500	6,610	7,060	6,690	5,330	3,200	3,620	3,200
19	2,680	5,190	7,620	31,700	8,000	6,240	6,580	6,300	5,600	3,320	3,700	3,000
20	2,760	5,610	7,140	27,000	7,500	6,060	6,110	6,630	5,480	3,100	3,760	3,000
21	2,890	5,270	6,840	18,000	7,000	5,960	6,060	6,240	5,520	3,160	3,640	3,000
22	3,220	5,090	6,010	20,000	7,000	6,840	5,800	5,550	5,330	3,100	3,850	3,000
23	3,570	6,520	5,520	19,000	6,000	11,400	5,780	5,450	5,480	3,120	3,930	3,200
24	4,840	19,400	5,330	19,000	6,500	13,200	5,880	5,800	5,330	2,920	3,380	3,400
25	4,500	15,300	5,140	17,000	7,000	12,300	5,800	7,400	6,450	3,140	3,400	3,400
26	4,290	15,300	5,000	16,000	7,500	12,600	5,850	8,350	7,140	3,280	3,360	3,600
27	3,730	15,700	4,900	14,000	8,000	11,600	6,320	8,000	5,980	3,020	3,440	3,600
28	3,470	11,700	5,260	12,000	7,000	10,600	6,320	7,980	5,260	3,340	3,300	3,800
29	3,410	12,500	6,840	11,000	-------	9,740	6,140	7,870	4,800	3,360	3,360	4,200
30	3,380	11,100	7,310	10,000	-------	10,100	6,110	7,540	4,550	3,460	3,340	3,600
31	3,240	-------	14,500	9,500	-------	10,200	-------	6,740	-------	3,220	3,440	-------
TOTAL	92,370	214,000	251,040	451,510	225,120	270,330	213,020	222,220	170,240	109,990	108,000	104,610
MEAN	2,980	7,133	8,098	14,560	8,040	8,720	7,101	7,168	5,675	3,548	3,484	3,487
MAX	4,840	19,400	14,500	39,000	10,000	13,200	9,560	9,260	7,140	4,460	3,930	4,710
MIN	2,480	3,050	4,900	5,520	6,000	5,960	5,780	5,450	4,550	2,920	3,180	3,000
CFSM	2.23	5.34	6.06	10.9	6.01	6.52	5.31	5.36	4.24	2.65	2.61	2.61
IN.	2.57	5.95	6.98	12.56	6.26	7.52	5.93	6.18	4.74	3.06	3.00	2.91
AC-FT	183,200	424,500	497,900	895,600	446,500	536,200	422,500	440,800	337,700	218,200	214,200	207,500

CAL YR 1970 TOTAL 1,968,300 MEAN 5,393 MAX 29,300 MIN 2,010 CFSM 4.03 IN 54.76 AC-FT 3,904,000
WTR YR 1971 TOTAL 2,432,450 MEAN 6,664 MAX 39,000 MIN 2,480 CFSM 4.98 IN 67.68 AC-FT 4,825,000

14166000 Willamette River at Harrisburg, Oreg.

LOCATION.--Lat 44°16'05", long 123°10'20", in SW¼NE¼ sec.16, T.15 S., R.4 W., Linn County, on right bank 10 ft downstream from bridge on U.S. Highway 99 at Harrisburg and at mile 161.2.

DRAINAGE AREA.--3,420 sq mi, approximately.

PERIOD OF RECORD.--October 1944 to current year. Gage-height records collected at same site in 1927-28, 1931, 1934, are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 290.39 ft above mean sea level. Oct. 1 to Nov. 14, 1944, nonrecording gage at bridge 10 ft upstream at same datum.

AVERAGE DISCHARGE.--27 years, 12,450 cfs (9,020,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 78,300 cfs Jan. 18 (gage height, 13.40 ft); minimum, 4,450 cfs Sept. 21.

Period of record: Maximum discharge, 210,000 cfs Dec. 29, 1945 (gage height, 19.69 ft), from rating curve extended above 115,000 cfs; minimum, 1,990 cfs Oct. 30, 1944.

Flood stage of 20.5 ft was reached in December 1861, and 20.1 ft in February 1890 (information from Corps of Engineers). Flood of Jan. 1, 1943, reached a stage of 19.1 ft, from U.S. Weather Bureau records.

REMARKS.--Records excellent except those above 15,000 cfs, which are fair. Flow regulated by 8 reservoirs above station (see elsewhere in this report). Many small diversions above station for irrigation. Records of chemical analyses at site on left bank and water temperatures for water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,510	9,520	29,800	28,600	32,400	14,200	18,400	11,400	13,900	8,620	5,720	9,290
2	6,750	9,560	29,700	22,000	32,600	13,500	15,900	10,700	14,100	8,080	5,770	10,100
3	6,800	9,160	28,300	18,200	32,100	15,700	14,300	11,100	12,900	7,330	5,550	10,000
4	6,740	8,220	31,400	15,900	31,800	18,100	13,700	12,600	11,300	7,030	5,530	8,590
5	6,690	8,610	28,000	13,900	30,500	16,800	13,500	13,400	10,800	6,900	5,670	7,630
6	6,650	9,000	27,700	12,200	28,900	15,000	14,000	12,700	10,500	6,700	5,770	7,350
7	6,980	9,110	28,300	10,800	27,700	14,800	13,900	12,100	10,800	6,290	5,720	7,430
8	6,860	9,180	31,400	10,700	26,200	16,000	13,700	12,200	11,100	5,500	5,650	7,480
9	6,480	10,800	27,900	17,500	19,900	14,400	16,500	12,400	10,800	5,250	5,670	8,030
10	5,980	11,500	23,800	25,200	19,400	13,700	22,100	12,200	10,600	5,860	5,620	8,590
11	6,200	11,800	21,900	25,800	20,200	22,000	20,400	12,100	10,500	5,790	5,690	8,140
12	6,150	18,200	20,700	31,600	18,200	31,700	18,300	12,200	10,300	5,790	6,580	8,000
13	6,100	18,700	19,200	28,500	18,000	30,300	15,700	14,000	10,500	5,570	7,600	8,200
14	6,090	13,100	18,400	29,300	17,400	30,200	13,100	15,000	10,800	5,390	7,700	8,110
15	5,930	11,400	20,700	37,800	19,500	26,300	12,500	12,600	10,500	5,300	7,800	8,140
16	6,110	11,200	30,800	33,100	22,100	23,900	12,000	11,800	10,000	5,570	7,800	8,030
17	6,140	11,700	33,900	51,400	17,900	21,900	12,800	11,400	9,400	5,890	7,700	7,050
18	6,370	12,400	23,200	70,600	13,500	15,500	13,300	10,300	9,320	5,810	7,650	5,440
19	6,360	12,600	17,500	66,100	13,400	13,100	12,700	10,100	9,730	5,810	7,700	5,040
20	6,450	13,600	15,400	67,300	12,700	12,200	11,700	11,300	9,340	5,690	7,780	4,860
21	6,870	13,300	14,700	47,600	12,100	11,900	11,800	11,300	9,580	5,650	7,800	4,720
22	7,380	13,400	12,500	54,200	11,800	13,100	11,400	9,340	10,800	5,620	8,110	4,810
23	8,290	15,000	10,600	58,000	11,500	24,000	11,300	7,680	10,700	5,720	8,200	5,410
24	10,900	33,900	9,610	57,800	10,900	35,800	11,900	7,800	10,600	5,410	7,280	7,250
25	10,800	27,000	8,670	57,400	13,300	37,400	12,000	11,300	11,500	5,570	7,100	8,000
26	10,500	35,700	8,290	51,900	14,800	36,400	12,500	13,900	16,000	5,720	8,310	8,590
27	9,990	38,900	7,980	47,900	16,600	34,600	14,000	17,100	13,000	5,480	8,620	8,590
28	9,530	32,600	8,290	43,200	15,800	28,400	13,700	16,000	10,500	5,770	8,560	8,620
29	9,210	33,100	12,300	36,600	------	23,000	12,700	16,000	9,430	5,790	8,620	9,970
30	8,860	31,400	16,200	35,100	------	22,500	12,000	15,200	9,120	5,890	8,640	9,880
31	9,320	------	30,500	32,900	------	22,100	------	13,400	------	5,570	8,730	------
TOTAL	229,990	503,660	647,640	1,139.1M	561,200	668,500	421,800	380,620	328,420	186,360	220,640	231,340
MEAN	7,419	16,790	20,890	36,750	20,040	21,560	14,060	12,280	10,950	6,012	7,117	7,711
MAX	10,900	38,900	33,900	70,600	32,600	37,400	22,100	17,100	16,000	8,620	8,730	10,100
MIN	5,930	8,220	7,980	10,700	10,900	11,900	11,300	7,680	9,120	5,250	5,530	4,720
AC-FT	456,200	999,000	1,285M	2,259M	1,113M	1,326M	836,600	755,000	651,400	369,600	437,600	458,900

CAL YR 1970 TOTAL 4,525,360 MEAN 12,400 MAX 62,900 MIN 4,800 AC-FT 8,976,000
WTR YR 1971 TOTAL 5,519,270 MEAN 15,120 MAX 70,600 MIN 4,720 AC-FT 10,950,000

14166500 Long Tom River near Noti, Oreg.

LOCATION.--Lat 44°03'00", long 123°25'30", in sec.33, T.17 S., R.6 W., Lane County, on left bank 0.2 mile upstream from Southern Pacific Railroad bridge, 0.8 mile downstream from Noti Creek, 1.3 miles southeast of Noti, and at mile 37.4.

DRAINAGE AREA.--89.3 sq mi.

PERIOD OF RECORD.--October 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.05 ft above mean sea level (levels by U.S. Weather Bureau). Prior to Nov. 6, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 239 cfs (36.35 inches per year, 173,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,330 cfs Jan. 17 (gage height, 17.29 ft); minimum, 8.7 cfs Oct. 1, 2, 4.
Period of record: Maximum discharge, 6,990 cfs Dec. 22, 1955 (gage height, 20.17 ft); minimum, 3.9 cfs Aug. 26, 1967.

REMARKS.--Records good. Slight regulation caused by logpond above Noti. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1318: 1936(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	17	445	1,370	383	400	515	172	104	56	18	100
2	9.0	17	523	759	347	376	463	184	105	54	18	115
3	9.0	15	667	551	318	594	418	174	95	50	14	71
4	9.0	15	784	440	344	937	385	173	91	48	14	43
5	9.3	22	498	378	416	811	353	169	85	48	14	35
6	9.6	54	480	328	359	646	329	163	85	48	16	35
7	11	44	579	302	320	612	305	157	78	45	15	36
8	11	34	524	286	287	667	366	150	74	44	13	30
9	11	41	376	307	253	586	867	144	73	43	14	26
10	11	37	310	372	328	615	1,290	137	81	44	12	24
11	11	63	299	558	326	1,170	1,110	135	78	45	12	23
12	11	112	256	540	302	1,840	970	130	73	42	11	22
13	9.9	74	223	473	287	1,720	740	129	84	37	9.9	21
14	9.6	48	235	426	281	1,230	584	124	83	35	11	20
15	9.6	38	380	1,220	392	1,020	503	124	74	32	12	19
16	9.0	71	1,010	2,970	485	820	449	175	68	31	11	18
17	9.6	93	919	4,120	421	680	466	146	66	29	10	16
18	12	65	577	3,470	382	579	442	129	73	27	10	14
19	16	53	427	2,680	391	505	385	122	75	27	10	14
20	18	44	370	2,280	348	458	356	116	67	25	11	14
21	23	38	359	1,420	325	415	343	117	62	21	12	14
22	42	37	314	1,010	317	432	323	111	58	21	16	14
23	86	139	280	857	300	503	274	105	56	20	17	14
24	80	505	247	744	305	550	277	100	56	20	14	14
25	87	701	230	845	377	488	263	102	132	19	13	17
26	81	398	217	917	388	671	248	120	105	19	11	22
27	44	485	221	737	460	772	235	114	79	17	10	21
28	30	419	334	604	442	779	236	101	72	16	12	26
29	23	277	840	526	------	698	239	95	67	17	13	47
30	20	262	1,170	469	------	653	209	93	61	18	12	50
31	19	------	2,430	418	------	605	------	93	------	17	42	------
TOTAL	749.6	4,218	16,524	32,377	9,884	22,832	13,943	4,104	2,360	1,015	427.9	935
MEAN	24.2	141	533	1,044	353	737	465	132	78.7	32.7	13.8	31.2
MAX	87	701	2,430	4,120	485	1,840	1,290	184	132	56	42	115
MIN	9.0	15	217	286	253	376	209	93	56	16	9.9	14
CFSM	.27	1.58	5.97	11.7	3.95	8.25	5.21	1.48	.88	.37	.15	.35
IN.	.31	1.76	6.88	13.49	4.12	9.51	5.81	1.71	.98	.42	.18	.39
AC-FT	1,490	8,370	32,780	64,220	19,600	45,290	27,660	8,140	4,680	2,010	849	1,850

CAL YR 1970 TOTAL 89,275.0 MEAN 245 MAX 3,550 MIN 5.3 CFSM 2.74 IN 37.19 AC-FT 177,100
WTR YR 1971 TOTAL 109,369.5 MEAN 300 MAX 4,120 MIN 9.0 CFSM 3.36 IN 45.56 AC-FT 216,900

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	1230	14.92	2,710	3-12	1900	13.24	2,070
1-17	0900	17.29	4,330				

14167000 Coyote Creek near Crow, Oreg.

LOCATION.--Lat 44°01'19", long 123°15'17", in SW¼NE¼ sec.11, T.18 S., R.5 W., Lane County, on right bank 1.0 mile downstream from Spencer Creek, 4.3 miles northeast of Crow, and at mile 3.8.

DRAINAGE AREA.--95.1 sq mi.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 374.0 ft above mean sea level (Corps of Engineers bench mark). Prior to Aug. 31, 1940, nonrecording gage near same site at different datums.

AVERAGE DISCHARGE.--31 years, 185 cfs (26.42 inches per year, 134,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,900 cfs Jan. 16, 17 (gage height, 12.17 ft); no flow Oct. 1-23, Aug. 17-31.
Period of record: Maximum discharge, 10,600 cfs Feb. 10, 1961 (gage height, 14.43 ft), from rating curve extended above 4,700 cfs; no flow at times most years.

REMARKS.--Records good. No regulation. Several small diversions for irrigation above station.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	2.8	537	1,410	144	514	303	80	45	6.4	.26	.23
2	0	3.5	595	783	133	472	252	75	54	11	.26	.73
3	0	2.6	689	487	119	821	212	71	42	10	.17	2.4
4	0	3.7	725	308	202	1,040	182	66	35	9.1	.09	7.4
5	0	4.9	503	234	246	987	162	65	30	8.5	.61	5.3
6	0	6.4	320	188	203	717	145	60	26	7.4	.17	4.3
7	0	12	364	168	175	575	134	54	23	7.4	.07	3.5
8	0	13	342	162	153	500	144	47	22	6.4	.07	2.8
9	0	15	251	170	139	429	672	43	21	6.0	.09	2.6
10	0	22	200	254	145	447	878	41	20	6.0	.13	2.4
11	0	23	205	559	126	725	830	38	20	5.3	.09	1.6
12	0	46	165	617	113	1,450	693	37	19	5.3	.07	1.3
13	0	37	145	488	103	1,240	515	38	20	5.3	.09	1.2
14	0	23	177	428	117	987	364	38	21	5.3	.06	.85
15	0	15	371	2,150	301	840	275	34	17	4.3	.03	.73
16	0	14	1,010	3,220	416	656	231	68	15	3.5	.01	.51
17	0	16	1,030	3,480	300	484	312	71	14	3.7	0	.37
18	0	16	684	2,730	280	352	338	46	15	3.7	0	.33
19	0	14	375	1,920	325	284	255	38	17	1.8	0	.33
20	0	12	298	1,590	257	239	220	35	15	.61	0	.29
21	0	10	266	1,040	225	202	200	37	13	.85	0	.23
22	0	9.7	206	720	217	234	173	34	12	.61	0	.23
23	0	63	170	520	188	389	159	30	11	.37	0	.20
24	12	271	145	394	194	405	150	28	10	.46	0	.20
25	20	422	129	453	297	388	145	26	29	.20	0	.23
26	18	270	121	395	340	627	125	35	40	.07	0	.51
27	15	431	146	311	602	586	109	40	29	.06	0	.37
28	7.9	387	262	261	586	541	100	33	21	.06	0	.46
29	4.9	214	762	221	------	423	92	28	17	.85	0	.73
30	3.7	240	1,080	186	------	425	85	26	12	2.2	0	13
31	3.0	------	2,340	162	------	405	------	26	------	.61	0	------
TOTAL	84.5	2,619.6	14,613	26,009	6,646	18,384	8,455	1,388	685	123.35	2.27	55.33
MEAN	2.73	87.3	471	839	237	593	282	44.8	22.8	3.98	.073	1.84
MAX	20	431	2,340	3,480	602	1,450	878	80	54	11	.61	13
MIN	0	2.6	121	162	103	202	85	26	10	.06	0	.20
CFSM	.03	.92	4.95	8.82	2.49	6.24	2.97	.47	.24	.04	.0008	.02
IN.	.03	1.02	5.72	10.17	2.60	7.19	3.31	.54	.27	.05	0	.02
AC-FT	168	5,200	28,980	51,590	13,180	36,460	16,770	2,750	1,360	245	4.5	110

CAL YR 1970 TOTAL 65,489.65 MEAN 179 MAX 3,320 MIN 0 CFSM 1.88 IN 25.62 AC-FT 129,900
WTR YR 1971 TOTAL 79,065.05 MEAN 217 MAX 3,480 MIN 0 CFSM 2.28 IN 30.93 AC-FT 156,800

PEAK DISCHARGE (BASE, 1,600 CFS).--Dec. 31 (0600) 2,610 cfs (11.23 ft); Jan. 16 (2400) 3,900 cfs (12.17 ft).

14168000 Fern Ridge Lake near Elmira, Oreg.
(Formerly published as Fern Ridge Reservoir near Elmira)

LOCATION.--Lat 44°07'15", long 123°18'00", near center of sec.4, T.17 S., R.5 W., Lane County, in control house at spillway section of dam across Long Tom River and Coyote Creek, 4.5 miles northeast of Elmira, and at mile 25.7.

DRAINAGE AREA.--252 sq mi, not including Amazon Creek basin (see REMARKS).

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 103,700 acre-ft Apr. 11 (elevation, 373.78 ft); minimum observed, 2,270 acre-ft Nov. 17 (elevation, 349.00 ft).

Period of record: Maximum contents, 124,500 acre-ft Dec. 27, 1955 (elevation, 375.83 ft); minimum since first filling in 1942, 163 acre-ft Nov. 11, 1950 (elevation, 344.00 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers; storage began Nov. 13, 1941. Total capacity, 116,800 acre-ft at elevation 375.1 ft (maximum pool elevation). Usable capacity, 101,100 acre-ft between elevations 340.0 (sill of outlet gate) and 373.5 ft (normal maximum operating pool level). Reservoir used for flood control and improvement of navigation. Since November 1951, most of flow of Amazon Creek has been diverted in SE¼ sec.29, T.17 S., R.4 W., and discharged into Fern Ridge Reservoir; drainage area at point of diversion, 21.3 sq mi.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

349	2,270	356	12,440	364	37,490	372	87,720
350	3,250	358	17,020	366	46,940	374	105,800
352	5,730	360	22,670	368	58,320		
354	8,760	362	29,460	370	71,900		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68,290	23,010	8,980	17,800	44,170	52,260	95,040	102,200	103,000	101,800	95,580	89,260
2	68,150	20,920	11,320	16,220	42,240	53,580	95,760	102,100	102,800	101,700	95,400	89,340
3	68,010	18,790	11,230	13,150	40,160	55,940	96,480	102,000	102,600	101,700	94,950	89,340
4	67,730	16,770	9,580	8,930	38,900	57,700	96,840	102,000	102,200	101,400	94,680	89,170
5	66,750	15,590	7,040	7,710	38,240	58,820	97,380	102,000	102,100	101,200	94,680	89,340
6	65,030	14,720	4,070	7,660	37,930	59,580	98,210	102,000	102,000	101,000	94,320	89,170
7	63,480	13,880	4,070	7,630	37,450	60,410	99,030	102,000	101,800	101,000	94,060	89,260
8	62,030	13,150	4,690	7,760	37,190	61,500	100,600	102,000	101,800	100,900	93,790	89,260
9	60,410	12,330	4,820	7,820	37,490	62,550	103,000	102,000	101,700	100,800	93,700	89,080
10	58,950	11,480	4,790	8,240	37,970	64,220	103,300	102,000	101,800	100,600	93,350	88,830
11	57,150	10,980	4,870	9,770	38,370	67,730	103,400	102,000	101,800	100,500	92,990	88,660
12	55,820	9,700	4,910	10,820	38,550	71,020	103,100	102,000	102,000	100,400	92,730	88,570
13	54,160	7,700	4,700	10,720	38,590	72,340	103,000	102,000	102,200	100,200	92,380	88,060
14	52,650	5,220	5,210	8,350	38,900	72,710	103,000	103,000	102,200	100,100	92,030	87,640
15	51,190	3,490	7,230	17,330	39,710	72,860	103,000	103,000	102,200	100,000	91,850	87,300
16	49,640	2,760	10,000	33,970	40,480	72,200	103,000	103,000	102,100	99,860	91,420	86,880
17	48,350	2,460	10,270	53,000	41,220	72,420	103,100	103,000	102,300	99,490	91,160	86,710
18	46,990	2,370	8,730	69,000	42,770	73,830	103,000	102,800	102,500	99,220	90,890	86,540
19	45,560	2,560	7,930	81,850	43,970	75,190	103,000	102,300	102,400	99,120	90,550	86,290
20	44,270	2,860	8,110	89,260	44,610	76,960	102,800	102,300	102,300	98,900	90,200	85,960
21	43,000	2,960	7,870	88,060	45,160	78,200	102,700	102,200	102,300	98,660	90,120	85,790
22	41,310	3,250	7,170	84,710	45,810	80,650	102,500	102,300	102,200	98,300	90,030	85,790
23	39,710	4,560	7,140	80,250	46,530	82,500	102,300	102,500	102,000	98,210	89,600	85,460
24	38,240	6,310	7,250	75,350	47,830	83,810	102,200	102,800	102,600	98,020	89,430	85,290
25	36,850	6,410	7,250	70,440	49,210	86,460	102,300	103,000	103,000	97,660	89,260	85,290
26	34,990	6,060	7,280	65,710	50,520	88,830	102,800	103,200	102,700	97,290	89,000	85,210
27	32,920	6,810	7,480	60,340	51,300	90,200	102,400	103,000	102,200	97,020	88,740	85,130
28	31,040	7,100	8,110	56,000	51,690	91,330	102,300	103,000	102,000	96,660	88,570	85,380
29	29,020	6,230	9,610	51,860	-------	92,380	102,200	102,800	102,000	96,480	88,400	85,290
30	26,950	6,670	11,830	48,890	-------	93,790	102,200	102,800	102,000	96,120	88,230	85,290
31	24,950	-------	16,000	46,420	-------	94,410	-------	102,900	-------	95,940	88,490	-------
MAX	68,290	23,010	16,000	89,260	51,690	94,410	103,400	103,200	103,000	101,800	95,580	89,340
MIN	24,950	2,370	4,070	7,630	37,190	52,260	95,040	102,000	101,700	95,940	88,230	85,130
(†)	360.71	352.65	357.59	365.90	366.88	372.77	373.62	373.69	373.60	372.94	372.09	371.71
(‡)	-43,410	-18,280	+9,330	+30,420	+5,270	+42,720	+7,790	+700	-900	-6,060	-7,450	-3,200

CAL YR 1970 MAX 100,600 MIN 2,370 AC-FT ‡ +8,740
WTR YR 1971 MAX 103,400 MIN 2,370 AC-FT ‡ +16,930

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14169000 Long Tom River near Alvadore, Oreg.

LOCATION.--Lat 44°07'25", long 123°17'55", in SW¼NE¼ sec.4, T.17 S., R.5 W., Lane County, on left bank 0.2 mile downstream from Fern Ridge Dam, 1.7 miles west of Alvadore, and at mile 25.5.

DRAINAGE AREA.--252 sq mi, not including Amazon Creek basin.

PERIOD OF RECORD.--August 1939 to current year. Prior to October 1943, published as "at Smithfield," and October 1943 to September 1959, as "below Fern Ridge Dam, near Smithfield".

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 21, 1939, nonrecording gage and Sept. 21, 1939, to Sept. 30, 1943, water-stage recorder at site 2.5 miles downstream at datum 11.09 ft lower.

AVERAGE DISCHARGE.--32 years, 544 cfs (394,100 acre-ft per year), adjusted for diversion to Coyote Creek since 1943.

EXTREMES.--Current year: Maximum discharge, 4,670 cfs Jan. 21, minimum daily, 27 cfs Nov. 19, 20, Sept. 6, 7.
Period of record: Maximum discharge, 11,500 cfs Jan. 1, 1943 (gage height, 15.12 ft, site and datum then in use); minimum daily, 2 cfs Aug. 7, 1941.

REMARKS.--Records good. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions for irrigation above station. Records include diversion to Coyote Creek Channel. Point of diversion is 500 ft upstream and point of return, 2.3 miles downstream. Discharge not adjusted for storage or release from Fern Ridge Lake as evaporation from reservoir at times exceeds natural flow and diversions, and beginning in November 1951, most of flow of Amazon Creek has been diverted into Fern Ridge Lake.

REVISIONS (WATER YEARS).--WSP 1248: 1940-41, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	948	595	3,140	1,680	910	680	286	216	50	69	61
2	60	941	623	3,130	1,480	581	512	278	239	48	69	70
3	60	1,000	1,950	2,930	1,520	924	482	278	242	48	69	77
4	60	1,000	2,750	2,870	1,440	1,610	417	246	206	48	69	79
5	527	808	2,540	1,450	1,240	1,750	398	242	170	48	71	57
6	731	472	2,240	722	816	1,390	234	243	151	48	71	27
7	724	466	1,350	651	803	972	103	246	127	42	69	27
8	731	461	974	594	629	838	246	198	75	34	68	42
9	737	451	862	646	475	744	1,340	163	48	34	68	63
10	730	495	775	826	446	666	2,550	163	48	34	68	60
11	724	549	661	1,090	451	1,100	2,650	96	48	33	72	67
12	724	693	575	1,220	451	2,290	2,200	51	48	33	67	70
13	731	898	556	1,330	501	3,240	1,670	51	48	34	68	72
14	718	961	555	2,160	496	2,700	1,190	51	50	38	67	70
15	730	806	798	1,280	746	2,210	933	55	49	74	65	68
16	730	374	1,530	53	1,010	2,200	848	235	49	97	67	70
17	718	121	2,490	59	556	1,160	932	322	48	85	67	71
18	736	32	2,430	63	320	546	925	322	47	75	65	70
19	736	27	1,600	64	386	319	789	250	50	63	72	70
20	724	27	920	1,170	491	93	734	206	51	55	73	68
21	808	28	962	3,940	496	60	662	151	51	64	73	68
22	949	29	956	3,990	401	44	593	49	51	62	74	67
23	1,010	215	610	4,040	308	441	548	49	50	63	71	68
24	999	451	484	4,050	189	619	548	49	48	69	68	71
25	985	1,340	479	4,050	175	406	433	49	153	64	63	71
26	984	1,240	461	4,020	624	614	373	161	246	64	64	71
27	990	962	481	4,040	1,160	1,120	373	218	250	73	65	69
28	976	992	712	3,330	1,290	1,140	373	195	130	73	65	70
29	990	977	1,530	2,950	-------	924	373	174	49	73	65	102
30	990	712	2,270	2,260	-------	847	330	174	50	73	65	95
31	976	-------	2,950	1,960	-------	848	-------	170	-------	71	68	-------
TOTAL	22,348	18,476	38,669	64,078	20,580	33,306	24,439	5,421	3,088	1,770	2,115	2,011
MEAN	721	616	1,247	2,067	735	1,074	815	175	103	57.1	68.2	67.0
MAX	1,010	1,340	2,950	4,050	1,680	3,240	2,650	322	250	97	74	102
MIN	60	27	461	53	175	44	103	49	47	33	63	27

CAL YR 1970 TOTAL 190,906 MEAN 523 MAX 4,020 MIN 27
WTR YR 1971 TOTAL 236,301 MEAN 647 MAX 4,050 MIN 27

14169300 Amazon Creek at Eugene, Oreg.

LOCATION.--Lat 44°00'45", long 123°04'35", in SW¼SE¼ sec.8, T.18 S., R.3 W., Lane County, on right bank 145 ft south of intersection of 39th Street and E. Amazon Drive in Eugene, and at mile 20.3.

DRAINAGE AREA.--3.35 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 442.33 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 5.05 cfs (20.47 inches per year, 3,660 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 284 cfs Dec. 30 (gage height, 5.70 ft); minimum, 0.07 cfs Oct. 1, 2, 4, 5.
Period of record: Maximum discharge, 527 cfs Jan. 19, 1964 (gage height, 7.29 ft); no flow at times.

REMARKS.--Records good except those below 1.0 cfs, which are fair. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WRD Oreg. 1970: 1969(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.17	27	16	2.6	10	5.8	1.3	4.4	.42	.26	5.2
2	.07	.14	14	8.6	2.6	17	4.6	1.2	1.4	.33	.37	3.3
3	.09	.14	31	5.8	2.7	28	3.6	1.0	.93	.29	.29	.37
4	.07	1.3	13	4.4	6.6	23	3.2	1.2	.72	.29	.29	.23
5	.12	3.3	6.6	3.3	4.2	14	2.7	.93	.58	.33	.26	.72
6	.30	1.1	4.8	2.9	3.3	12	2.6	.93	.52	.33	.26	.29
7	.10	.72	11	2.7	2.9	9.8	2.2	.79	.47	.33	.26	.14
8	.10	5.8	5.2	5.2	2.4	7.4	11	1.2	.42	.33	.26	.12
9	.10	3.0	3.8	5.6	2.6	7.7	37	.65	.42	.33	.42	.09
10	.10	2.6	4.6	15	2.6	21	18	.58	.58	3.2	.37	.12
11	.10	18	4.0	24	2.0	48	21	.72	.33	.26	.33	.12
12	.10	3.5	2.9	13	1.8	36	11	1.7	.33	.37	.42	.12
13	.10	1.3	2.6	8.6	1.7	20	7.4	.93	1.2	.29	.29	.12
14	.10	.93	12	22	5.8	28	5.4	.58	.33	.26	.20	.09
15	.10	.86	32	155	17	18	4.6	1.7	.29	.29	.20	.09
16	.10	3.3	55	91	11	11	8.9	3.5	.26	.33	.23	.09
17	1.0	1.0	15	105	6.6	8.0	13	.93	.29	.37	.33	.12
18	.30	.72	7.7	63	13	6.1	8.3	.72	1.3	.37	.26	.12
19	.50	.65	5.0	59	11	4.8	5.6	.58	.33	.42	.23	.14
20	.30	.58	5.8	29	6.6	3.8	6.3	1.2	.29	.47	.23	.14
21	2.0	.42	4.2	18	5.6	3.3	4.6	.58	.33	.42	.72	.14
22	7.0	4.6	3.0	13	5.2	13	3.8	.52	.29	.37	1.2	.14
23	8.5	16	2.4	10	4.0	17	4.2	.47	.29	.33	.23	.17
24	4.2	24	2.0	8.9	5.8	12	4.0	.42	2.0	.33	.20	.17
25	9.5	14	1.7	9.5	8.0	23	3.3	1.7	8.6	.29	.20	1.0
26	1.3	11	2.9	6.3	19	22	2.6	3.3	1.1	.47	.17	.58
27	.47	21	3.8	5.0	17	15	2.2	.86	.58	.37	.23	.26
28	.29	7.1	18	4.2	14	10	1.8	.65	.42	.29	.14	7.4
29	.23	3.8	39	3.5	------	7.4	1.6	.93	.37	.33	.14	2.3
30	.20	20	55	3.0	------	14	1.5	.58	.33	.33	.42	.42
31	.17	------	42	2.7	------	8.0	------	1.8	------	.33	3.8	------
TOTAL	37.68	171.03	437.0	723.2	189.6	478.3	211.8	34.15	29.70	13.47	13.21	24.31
MEAN	1.22	5.70	14.1	23.3	6.77	15.4	7.06	1.10	.99	.43	.43	.81
MAX	9.5	24	55	155	19	48	37	3.5	8.6	3.2	3.8	7.4
MIN	.07	.14	1.7	2.7	1.7	3.3	1.5	.42	.26	.26	.14	.09
CFSM	.36	1.70	4.21	6.96	2.02	4.60	2.11	.33	.30	.13	.13	.24
IN.	.42	1.90	4.85	8.03	2.11	5.31	2.35	.38	.33	.15	.15	.27
AC-FT	75	339	867	1,430	376	949	420	68	59	27	26	48

CAL YR 1970 TOTAL 1,975.47 MEAN 5.41 MAX 128 MIN .05 CFSM 1.61 IN 21.94 AC-FT 3,920
WTR YR 1971 TOTAL 2,363.45 MEAN 6.48 MAX 155 MIN .07 CFSM 1.93 IN 26.24 AC-FT 4,690

PEAK DISCHARGE (BASE, 125 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-30	2115	5.70	284	3-11	1815	4.97	156
1-16	1545	5.67	278				

14170000 Long Tom River at Monroe, Oreg.

LOCATION.--Lat 44°18'50", long 123°17'45", in NE¼ sec.33, T.14 S., R.5 W., Benton County, on left bank in canalized river channel at Monroe, 110 ft upstream from bridge on U.S. Highway 99W, 0.1 mile downstream from Shafer Creek, and at mile 6.8.

DRAINAGE AREA.--391 sq mi.

PERIOD OF RECORD.--November 1920 to July 1921, October 1921 to April 1926, November 1926 to May 1927, October 1927 to current year. Prior to October 1930, published as "near Monroe."

GAGE.--Water-stage recorder and concrete control. Datum of gage is 270.57 ft above mean sea level. Prior to Nov. 24, 1944, nonrecording gage at various sites ranging from present site to 1.5 miles downstream at different datums.

AVERAGE DISCHARGE.--48 years (1921-25, 1927-71), 779 cfs (564,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,600 cfs Jan. 15 (gage height, 8.82 ft); minimum, 19 cfs July 14, 15.

Period of record: Maximum discharge, 19,300 cfs Jan. 2, 1943 (gage height, 17.14 ft, site and datum then in use), from graph based on gage readings, includes some overflow from Willamette River near Junction City; no flow Oct. 20-22, 1944 (water filling pool at gage); minimum observed prior to regulation, 7 cfs Sept. 29, Oct. 1, 1939.

REMARKS.--Records good. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions above station.

REVISIONS (WATER YEARS).--WSP 654: Drainage area. WSP 1248: 1923, 1927, 1928(M). WSP 1288: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	985	1,290	4,420	2,210	1,710	1,250	422	261	68	48	99
2	62	955	1,290	3,890	1,810	1,210	950	387	303	65	46	95
3	65	1,030	2,410	3,550	1,870	1,960	835	387	297	62	40	99
4	62	1,030	3,610	3,300	2,080	2,820	763	354	273	62	43	88
5	285	975	3,150	2,340	1,980	2,910	673	328	217	65	40	85
6	753	519	2,870	1,010	1,260	2,220	562	322	200	60	43	46
7	751	500	2,250	956	1,190	1,740	328	322	164	54	40	36
8	750	491	1,510	848	1,030	1,460	474	291	134	38	43	34
9	764	482	1,200	964	816	1,340	2,530	222	75	32	40	62
10	757	500	1,100	1,240	828	1,430	4,080	228	75	34	36	68
11	748	599	1,020	1,880	759	2,390	4,220	200	78	32	36	68
12	743	706	816	1,980	720	4,290	3,460	111	82	32	40	75
13	751	932	775	1,810	730	4,870	2,590	111	99	27	36	71
14	739	1,010	819	2,370	808	4,400	1,890	107	95	20	40	71
15	747	937	1,440	5,310	1,300	3,320	1,480	107	71	26	46	71
16	755	527	2,900	4,160	1,670	3,020	1,290	217	65	75	43	68
17	747	241	3,630	4,120	1,200	2,210	1,380	394	65	75	43	71
18	758	65	3,110	3,050	740	1,100	1,460	380	75	65	40	71
19	774	61	2,390	2,510	796	840	1,210	335	75	57	38	71
20	763	54	1,370	2,210	862	448	1,110	250	82	43	46	68
21	811	49	1,390	4,870	819	396	1,000	250	68	34	51	65
22	963	54	1,310	4,850	774	412	900	111	62	48	54	65
23	1,060	186	982	4,750	581	846	817	95	68	36	54	65
24	1,070	728	695	4,650	556	1,360	799	92	71	40	54	68
25	1,060	1,650	665	5,280	548	907	709	92	139	43	51	71
26	1,050	1,800	632	4,980	967	1,530	562	153	297	40	48	75
27	1,050	1,490	668	4,710	1,890	1,980	538	267	285	40	46	71
28	1,030	1,350	1,090	4,180	2,140	2,010	530	261	239	51	46	82
29	1,030	1,190	2,660	3,540	------	1,700	522	217	82	48	48	102
30	1,030	1,080	4,030	3,000	------	1,540	474	217	75	46	51	116
31	1,010	------	5,500	2,440	------	1,500	------	228	------	46	62	------
TOTAL	22,998	22,176	58,572	99,168	32,934	59,849	39,386	7,458	4,172	1,464	1,392	2,197
MEAN	742	739	1,889	3,199	1,176	1,931	1,313	241	139	47.2	44.9	73.2
MAX	1,070	1,800	5,500	5,310	2,210	4,870	4,220	422	303	75	62	116
MIN	60	49	632	848	548	396	328	92	62	20	36	34
AC-FT	45,620	43,990	116,200	196,700	65,320	118,700	78,120	14,790	8,280	2,900	2,760	4,360

CAL YR 1970 TOTAL 285,635 MEAN 783 MAX 5,500 MIN 19 AC-FT 566,600
WTR YR 1971 TOTAL 351,766 MEAN 964 MAX 5,500 MIN 20 AC-FT 697,700

14171000 Marys River near Philomath, Oreg.

LOCATION.--Lat 44°31'33", long 123°20'00", in NE¼NE¼ sec.18, T.12 S., R.5 W., Benton County, on left bank 50 ft downstream from bridge on Bellfountain Road, 0.6 mile downstream from Newton Creek, 2.0 miles southeast of Philomath, and at mile 9.4.

DRAINAGE AREA.--159 sq mi (including drainage area of Evergreen Creek above Bellfountain Road, 1.4 miles south of station).

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 224.01 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1961, nonrecording gage at bridge 50 ft upstream at same datum.

AVERAGE DISCHARGE.--31 years, 468 cfs (39.97 inches per year, 339,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,330 cfs Jan. 16 (gage height, 20.68 ft); minimum, 8.4 cfs Oct. 3.
Period of record: Maximum discharge, 13,600 cfs Dec. 22, 1964 (gage height, 20.72 ft); maximum gage height observed, 20.83 ft Dec. 21, 1955, minimum discharge, 0.60 cfs Aug. 23, 1967.

REMARKS.--Records good. Records include flow of Evergreen Creek at Bellfountain Road crossing 1.4 miles south of station, with which overflow from Marys River may at times be mingled. Slight regulation by small storage reservoir on Rock Creek from which municipal supply is diverted for city of Corvallis. Other small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1935: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	34	520	1,100	786	692	780	268	134	74	27	76
2	9.4	31	500	950	688	696	688	259	129	71	26	134
3	8.7	29	700	850	608	1,200	620	242	122	65	23	119
4	9.1	30	680	780	884	1,460	562	230	116	64	21	73
5	9.6	35	950	700	922	1,270	517	220	110	61	20	52
6	10	55	1,200	666	784	1,130	477	210	105	59	19	44
7	11	66	1,400	580	690	1,220	564	200	103	57	19	40
8	11	76	1,100	544	616	1,350	1,920	195	101	53	21	36
9	12	79	850	670	570	1,220	2,090	185	97	52	18	34
10	12	87	600	896	652	1,880	2,200	180	101	55	17	31
11	12	241	600	1,250	602	3,360	1,660	175	99	56	16	29
12	11	325	550	1,140	562	4,550	1,330	168	95	52	15	28
13	11	238	500	992	531	3,240	1,080	162	97	48	16	26
14	11	162	700	880	547	2,390	912	157	100	45	18	25
15	9.9	134	950	4,680	720	1,850	798	155	93	41	18	23
16	9.9	237	1,300	6,570	752	1,440	792	297	85	38	16	21
17	10	247	950	6,210	686	1,200	686	283	81	37	15	20
18	13	216	750	5,140	670	1,020	594	216	84	37	15	18
19	20	201	650	4,150	682	876	553	185	84	34	13	18
20	24	187	580	3,390	606	764	514	173	80	30	13	18
21	44	183	520	2,460	564	680	480	169	76	29	15	18
22	85	188	480	1,870	550	704	445	155	71	28	16	17
23	171	436	440	1,880	537	804	420	146	68	26	17	17
24	176	1,460	400	1,970	577	868	396	136	70	27	16	18
25	144	1,340	370	2,940	846	822	372	137	147	27	15	20
26	140	968	350	2,750	866	1,250	351	177	148	25	14	23
27	99	1,240	400	2,080	878	1,260	334	175	105	25	13	27
28	65	1,010	500	1,530	798	1,160	315	151	92	25	14	34
29	49	960	700	1,250	------	1,030	298	137	86	25	16	55
30	40	540	2,500	1,040	------	996	283	131	80	26	15	59
31	37	------	3,000	900	------	892	------	129	------	27	46	------
TOTAL	1,283.9	10,635	25,660	62,808	19,174	43,276	23,031	5,799	2,959	1,319	563	1,153
MEAN	41.4	355	828	2,026	685	1,396	768	187	98.6	42.5	18.2	38.4
MAX	176	1,460	3,000	6,570	922	4,550	2,200	297	148	74	46	134
MIN	8.7	29	350	544	531	680	283	129	68	25	13	17
CFSM	.26	2.23	5.21	12.7	4.31	8.78	4.83	1.18	.62	.27	.11	.24
IN.	.30	2.49	6.00	14.69	4.49	10.12	5.39	1.36	.69	.31	.13	.27
AC-FT	2,550	21,090	50,900	124,600	38,030	85,840	45,680	11,500	5,870	2,620	1,120	2,290

CAL YR 1970 TOTAL 176,146.2 MEAN 483 MAX 5,890 MIN 3.1 CFSM 3.04 IN 41.21 AC-FT 349,400
WTR YR 1971 TOTAL 197,660.9 MEAN 542 MAX 6,570 MIN 8.7 CFSM 3.41 IN 46.25 AC-FT 392,100

PEAK DISCHARGE (BASE, 3,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
-	-	20.12	[a]5,680	1-25	1630	17.05	3,220
1-16	1730	20.68	7,330	3-12	0130	19.88	3,320

NOTE.--No gage-height record Nov. 28 to Jan. 6.

[a] Probably occurred in December.

14172000 Calapooia River at Holley, Oreg.

LOCATION.--Lat 44°21'05", long 122°47'10", in SE¼ sec.15, T.14 S., R.1 W., Linn County, on right bank 200 ft downstream from bridge on State Highway 228, 0.3 mile southwest of Holley, 5.0 miles upstream from Brush Creek, and at mile 45.4.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1963, published as Calapooya River at Holley.

GAGE.--Water-stage recorder. Datum of gage is 527.38 ft above mean sea level. Prior to Oct. 7, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--36 years, 444 cfs (57.42 inches per year, 321,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,910 cfs Jan. 19 (gage height, 8.77 ft); minimum, 24 cfs Oct. 4, 15-17.
Period of record: Maximum discharge, 12,600 cfs Dec. 22, 1964 (gage height, 14.60 ft); maximum gage height, 15.30 ft Dec. 22, 1964 (backwater from debris); minimum discharge observed, 13 cfs Sept. 8, 1940.

REMARKS.--Records good. Slight regulation at times during low-water periods by small dam upstream. Diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1044: 1943. WSP 1218: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	109	806	1,270	780	482	899	523	357	142	50	231
2	26	96	722	950	683	490	787	569	301	132	47	367
3	25	86	920	758	578	818	707	629	269	123	45	219
4	24	86	860	615	706	771	672	621	250	114	44	127
5	26	107	902	530	641	620	736	535	240	109	44	92
6	30	152	1,110	465	569	572	782	450	232	103	44	82
7	30	124	1,400	416	512	662	676	461	230	97	42	69
8	27	206	1,140	764	468	711	673	509	216	92	41	61
9	26	450	890	1,650	454	644	1,270	438	204	98	39	56
10	33	367	740	2,420	968	1,120	1,200	402	201	99	38	52
11	32	740	752	1,580	890	1,710	1,060	415	193	91	37	54
12	28	1,150	626	1,140	792	2,040	938	467	184	84	36	51
13	26	638	550	926	741	1,510	847	523	194	80	35	47
14	26	430	570	812	716	1,210	784	397	205	76	36	45
15	25	335	806	2,290	1,010	1,040	726	363	181	73	35	43
16	24	605	1,460	3,100	901	875	676	439	168	70	34	41
17	24	490	1,060	4,520	734	742	719	369	160	67	34	39
18	35	420	806	4,830	678	646	740	327	190	65	33	38
19	58	407	644	4,750	628	598	637	313	210	63	32	37
20	55	407	590	3,150	556	587	625	298	181	60	32	36
21	93	416	510	1,760	520	601	576	270	167	58	32	35
22	176	367	440	1,300	525	957	545	255	161	55	47	35
23	485	610	384	1,200	519	1,550	553	264	155	54	46	34
24	515	2,580	347	1,170	761	1,660	561	279	135	54	36	35
25	347	1,800	315	1,330	857	1,340	563	284	419	52	33	73
26	264	1,210	292	1,200	704	1,370	568	411	304	51	32	196
27	193	1,400	295	1,070	630	1,180	572	336	223	50	32	127
28	160	1,050	475	955	554	1,090	521	304	193	49	34	181
29	147	818	860	825	------	1,050	492	276	170	49	32	408
30	138	812	1,470	777	------	1,180	479	259	154	49	31	260
31	126	------	2,420	855	------	1,060	------	253	------	49	55	------
TOTAL	3,250	18,468	25,162	49,378	19,075	30,886	21,584	12,239	6,447	2,408	1,188	3,171
MEAN	105	616	812	1,593	681	996	719	395	215	77.7	38.3	106
MAX	515	2,580	2,420	4,830	1,010	2,040	1,270	629	419	142	55	408
MIN	24	86	292	416	454	482	479	253	135	49	31	34
CFSM	1.00	5.87	7.73	15.2	6.49	9.49	6.85	3.76	2.05	.74	.36	1.01
IN.	1.15	6.54	8.91	17.49	6.76	10.94	7.65	4.34	2.28	.85	.42	1.12
AC-FT	6,450	36,630	49,910	97,940	37,840	61,260	42,810	24,280	12,790	4,780	2,360	6,290

CAL YR 1970 TOTAL 153,780 MEAN 421 MAX 3,720 MIN 21 CFSM 4.01 IN 54.48 AC-FT 305,000
WTR YR 1971 TOTAL 193,256 MEAN 529 MAX 4,830 MIN 24 CFSM 5.04 IN 68.47 AC-FT 383,300

PEAK DISCHARGE (BASE, 3,400 CFS).--Dec. 30 (2400) 3,650 cfs (6.72 ft); Jan. 19 (1600) 5,910 cfs (8.77 ft).

14173500 Calapooia River at Albany, Oreg.

LOCATION.--Lat 44°37'15", long 123°07'40", in NW¼ sec.13, T.11 S., R.4 W., Linn County, near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mile downstream from Oak Creek, and at mile 3.0.

DRAINAGE AREA.--372 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1963, published as Calapooya River at Albany.

GAGE.--Water-stage recorder. Datum of gage is 180.85 ft above mean sea level. Prior to May 11, 1962, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 921 cfs (33.62 inches per year, 667,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,500 cfs Jan. 20 (gage height, 18.63 ft); minimum, 13 cfs Aug. 15.
Period of record: Maximum discharge observed, 32,700 cfs Dec. 22, 1955 (gage height, 22.12 ft); maximum gage height, 25.5 ft Jan. 2, 1943, from graph based on gage readings (backwater from Willamette River); minimum discharge, 3.5 cfs Sept. 7, 1967.

REMARKS.--Records excellent. Higher flows are affected by backwater from Willamette River at times. Diurnal fluctuation caused by ponds at flour mills near Shedd. Diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 1218: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	141	2,040	6,680	1,180	2,000	1,630	610	323	198	61	59
2	28	131	2,850	3,980	1,100	1,370	1,320	634	427	182	38	155
3	35	123	2,580	1,930	976	1,930	1,130	658	373	168	59	361
4	29	114	3,620	1,290	1,330	3,250	1,010	719	328	155	53	240
5	19	105	2,370	1,010	1,910	3,460	924	691	298	152	40	143
6	34	115	1,890	817	1,240	1,930	964	619	274	143	47	153
7	35	148	2,430	709	976	1,740	968	532	269	137	49	83
8	31	150	2,790	807	821	1,630	896	538	257	129	39	91
9	28	167	2,090	2,130	765	1,500	3,360	592	242	122	30	82
10	29	375	1,450	2,820	1,230	1,710	5,060	481	229	120	51	75
11	25	378	1,460	3,930	1,490	3,210	4,660	451	223	123	50	70
12	24	750	1,270	4,070	1,22C	5,090	3,420	472	214	119	39	53
13	39	1,220	996	2,780	1,100	6,020	2,170	532	206	113	37	72
14	28	705	912	1,730	1,000	4,760	1,570	562	214	105	30	59
15	25	471	2,150	4,850	1,790	3,510	1,340	475	217	95	25	49
16	39	373	4,070	9,370	2,650	2,290	1,180	427	198	94	21	48
17	29	607	4,950	9,370	1,860	1,610	1,190	469	184	89	41	46
18	24	501	3,610	10,800	1,360	1,300	1,320	436	180	113	33	48
19	16	430	1,640	11,300	1,730	1,110	1,210	373	191	54	33	37
20	35	410	1,270	11,900	1,360	992	1,020	364	212	68	28	37
21	56	410	1,400	7,460	1,060	936	1,030	340	193	70	44	54
22	62	418	1,000	4,820	1,090	968	924	320	177	73	26	42
23	144	443	761	2,920	1,420	1,970	849	295	167	73	23	31
24	313	1,150	639	1,790	1,160	2,670	873	308	163	60	47	39
25	474	3,270	567	2,950	1,850	2,560	849	313	189	49	47	35
26	332	3,830	504	2,990	2,260	2,960	779	355	526	59	43	35
27	278	2,990	516	1,650	2,400	3,010	761	496	406	65	33	125
28	216	2,860	912	942	2,530	2,750	719	412	298	47	37	173
29	180	1,940	3,520	750	------	2,000	670	352	250	53	28	114
30	162	1,290	4,380	808	------	1,750	631	323	217	60	33	352
31	156	------	5,570	924	------	2,050	------	308	------	51	47	------
TOTAL	2,955	26,015	66,207	120,277	40,858	74,036	44,427	14,457	7,645	3,139	1,212	2,961
MEAN	95.3	867	2,136	3,880	1,459	2,388	1,481	466	255	101	39.1	98.7
MAX	474	3,830	5,570	11,900	2,650	6,020	5,060	719	526	198	61	361
MIN	16	105	504	709	765	936	631	295	163	47	21	31
CFSM	.26	2.33	5.74	10.4	3.92	6.42	3.98	1.25	.69	.27	.11	.27
IN.	.30	2.60	6.62	12.03	4.09	7.40	4.44	1.45	.76	.31	.12	.30
AC-FT	5,860	51,600	131,300	238,600	81,040	146,900	88,120	28,680	15,160	6,230	2,400	5,870

CAL YR 1970 TOTAL 334,351.7 MEAN 916 MAX 11,300 MIN 5.3 CFSM 2.46 IN 33.44 AC-FT 663,200
WTR YR 1971 TOTAL 404,189.0 MEAN 1,107 MAX 11,900 MIN 16 CFSM 2.98 IN 40.42 AC-FT 801,700

14174000 Willamette River at Albany, Oreg.

LOCATION.--Lat 44°38'20", long 123°06'20", in SW¼ sec.6, T.11 S., R.3 W., Linn County, on right bank 5 ft upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mile downstream from Calapooia River, and at mile 119.31.

DRAINAGE AREA.--4,840 sq mi, approximately.

PERIOD OF RECORD.--November 1878 to April 1888 (fragmentary), January to June 1892, November 1892 to September 1894, December 1894 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 167.18 ft above mean sea level. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mile upstream at datum 5.00 ft higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft upstream at datum 5.00 ft higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft higher.

AVERAGE DISCHARGE.--77 years (1893-94, 1895-71), 14,470 cfs (40.60 inches per year, 10,480,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 82,200 cfs Jan. 20 (gage height, 24.49 ft); minimum, 5,240 cfs Sept. 22.

Period of record: Maximum discharge, 266,000 cfs Jan. 14, 1881 (gage height, 37.8 ft, present datum); minimum, 1,840 cfs Sept. 1, 2, 1940.

Flood of Dec. 4, 1861, reached a stage of 41.0 ft (discharge, 340,000 cfs), from rating curve extended above 220,000 cfs. Flood of Feb. 4, 1890, reached a stage of 38.9 ft (discharge, 291,000 cfs).

REMARKS.--Records excellent, except those for period of backwater from bridge construction, which are good. Flow regulated by 9 reservoirs above station (see elsewhere in this report). Albany power canal diverts water from South Santiam River at Lebanon and discharges into Calapooia River near mouth; small diversions for irrigation and municipal water supply. Records of water temperatures for the water year 1971 at site 0.6 mile upstream are published as "Willamette River above Calapooia River, at Albany" in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 694: Drainage area. WSP 904: 1939. WSP 964: 1881, 1890, 1894, 1897, 1901, 1903, 1908, 1910, 1916, 1923, 1927, 1932(M). WSP 984: 1916. WSP 1248: 1895, 1902, 1907, 1915(M), 1917(M), 1918-19, 1934(M). WSP 1318 (monthly and annual figures only): 1894, 1897, 1901-3, 1907-8, 1910, 1916, 1918-19, 1923, 1927.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,540	10,400	33,100	47,800	37,200	21,900	26,900	14,000	14,400	9,820	6,020	9,420
2	6,780	10,400	33,400	38,300	35,800	18,800	22,900	13,100	15,300	9,270	6,060	10,200
3	7,050	10,300	33,900	28,900	35,200	21,200	19,900	12,800	14,700	8,630	6,040	10,900
4	6,960	9,690	37,600	23,700	35,900	27,500	18,200	13,700	13,300	7,970	5,860	10,200
5	6,940	9,460	36,900	20,800	36,500	29,600	17,200	14,800	12,100	7,770	5,900	8,630
6	7,330	9,530	33,200	17,300	34,000	24,900	17,100	14,800	11,400	7,570	6,040	8,210
7	7,680	9,660	34,400	15,100	31,500	22,100	16,900	14,000	11,200	7,240	6,080	7,860
8	7,880	9,530	34,900	14,100	30,000	21,500	16,500	13,600	11,700	6,670	6,020	7,840
9	7,710	10,300	33,700	17,100	26,000	21,100	23,800	13,900	11,300	6,040	5,920	8,060
10	7,020	11,900	29,100	24,000	22,400	19,800	34,700	13,700	11,100	6,120	5,980	8,830
11	7,130	12,300	26,200	31,200	24,000	27,100	38,100	13,500	11,000	6,500	5,920	8,890
12	7,180	15,400	24,200	33,600	21,600	41,500	34,300	13,400	10,800	6,310	6,060	8,560
13	7,130	20,400	22,400	34,200	20,600	49,400	28,700	14,100	10,800	6,290	7,180	8,500
14	7,070	17,900	21,000	31,400	20,000	45,800	22,900	15,700	10,900	6,040	7,880	8,560
15	6,980	13,800	23,800	40,600	21,500	40,600	19,500	15,100	11,200	5,800	7,900	8,520
16	7,070	12,700	32,900	61,000	27,000	34,000	17,700	13,300	10,700	5,820	7,990	8,470
17	7,160	12,800	43,200	63,500	25,900	30,100	17,200	13,300	10,200	6,210	8,030	8,430
18	7,310	12,700	39,200	70,800	19,600	24,200	18,200	12,400	9,750	6,350	7,900	6,710
19	7,440	12,900	28,300	78,800	17,700	18,200	17,900	11,500	9,950	6,170	7,880	5,900
20	7,530	13,600	21,600	81,000	16,900	15,700	16,500	11,900	10,100	6,230	7,950	5,600
21	7,680	13,700	20,700	75,200	15,600	14,500	15,600	12,600	9,770	6,040	8,030	5,480
22	8,120	13,900	18,500	62,600	14,900	14,400	15,200	12,000	10,500	6,000	8,140	5,340
23	8,940	14,400	15,700	59,400	14,900	19,700	14,600	9,440	11,100	6,000	8,430	5,440
24	10,800	20,900	13,700	60,600	13,800	31,100	14,700	8,870	10,900	5,940	8,280	6,520
25	12,300	35,000	12,000	62,900	15,700	37,800	15,000	10,100	11,200	5,860	7,440	8,080
26	12,000	32,300	11,200	64,400	18,700	40,400	14,700	13,200	14,300	6,020	7,860	8,520
27	11,300	36,900	10,700	59,400	21,600	41,900	15,800	16,400	15,900	6,020	8,560	8,980
28	10,900	38,400	11,600	54,000	23,600	40,400	16,300	17,400	13,000	5,820	8,780	9,160
29	10,400	33,500	19,100	47,500	------	33,800	15,400	16,800	11,100	6,100	8,740	9,550
30	10,100	33,100	27,900	40,400	------	29,600	14,600	16,600	10,300	6,170	8,800	10,700
31	9,950	------	37,800	37,600	------	29,800	------	15,200	------	6,080	9,020	------
TOTAL	256,380	517,770	821,900	1,397.2M	678,100	888,400	597,000	421,210	349,970	204,870	226,690	246,060
MEAN	8,270	17,260	26,510	45,070	24,220	28,660	19,900	13,590	11,670	6,609	7,313	8,202
MAX	12,300	38,400	43,200	81,000	37,200	49,400	38,100	17,400	15,900	9,820	9,020	10,900
MIN	6,540	9,460	10,700	14,100	13,800	14,400	14,600	8,870	9,750	5,800	5,860	5,340
CFSM	1.71	3.57	5.48	9.31	5.00	5.92	4.11	2.81	2.41	1.37	1.51	1.69
IN.	1.97	3.98	6.32	10.74	5.21	6.83	4.59	3.24	2.69	1.57	1.74	1.89
AC-FT	508,500	1,027M	1,630M	2,771M	1,345M	1,762M	1,184M	835,500	694,200	406,400	449,600	488,100

CAL YR 1970 TOTAL 5,503,960 MEAN 15,080 MAX 80,800 MIN 5,120 CFSM 3.12 IN 42.30 AC-FT 10,920,000
WTR YR 1971 TOTAL 6,605,550 MEAN 18,100 MAX 81,000 MIN 5,340 CFSM 3.74 IN 50.77 AC-FT 13,100,000

NOTE.--Backwater from bridge construction Nov. 24 to Jan. 31.

14178000 North Santiam River below Boulder Creek, near Detroit, Oreg.

LOCATION.--Lat 44°42'25", long 122°06'00", in SE¼NW¼ sec.17, T.10 S., R.6 E., Marion County, on right bank 0.5 mile downstream from Boulder Creek, 3.0 miles southeast of Detroit, and at mile 70.7.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--January 1907 to October 1909; October 1928 to current year. Monthly discharge only January 1907, published in WSP 1318. Prior to October 1952, published as "at Detroit."

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft above mean sea level. See WSP 1738 for hisotry of changes prior to Oct. 1, 1952.

AVERAGE DISCHARGE.--45 years, 1,001 cfs (62.93 inches per year, 725,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,460 cfs Jan. 19 (gage height, 8.52 ft); minimum, 365 cfs Oct. 15.
Period of record: Maximum discharge 26,700 cfs Dec. 22, 1964 (gage height, 13.76 ft, temporary backwater from debris), from rating curve extended above 6,600 cfs on basis of slope-area measurement of peak flow; minimum, 250 cfs Sept. 13, 1909.

REMARKS.--Records excellent. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).WSP 814: Drainage area at former site. WSP 1248: 1931.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	384	444	999	887	1,270	931	1,320	1,560	1,710	1,210	701	1,010
2	386	444	918	798	1,250	910	1,260	1,890	1,540	1,200	665	1,050
3	386	442	902	749	1,180	919	1,220	2,370	1,460	1,160	639	815
4	383	447	825	703	1,190	883	1,220	2,650	1,480	1,120	630	695
5	392	492	977	671	1,100	839	1,330	2,310	1,540	1,100	622	642
6	412	530	1,190	651	1,040	812	1,530	2,030	1,620	1,050	618	620
7	401	513	1,570	630	986	821	1,550	2,200	1,750	1,010	614	568
8	391	633	1,460	775	945	803	1,560	2,560	1,660	999	606	573
9	399	784	1,260	1,230	938	784	2,030	2,500	1,650	1,010	597	563
10	404	689	1,150	1,670	1,680	938	1,980	2,320	1,630	1,010	596	556
11	390	1,130	1,220	1,360	1,830	1,130	1,770	2,460	1,600	949	585	564
12	383	1,540	1,080	1,150	1,740	1,330	1,570	2,970	1,640	920	577	558
13	378	1,070	1,010	1,030	1,840	1,220	1,480	3,320	1,710	902	574	544
14	374	864	977	977	1,930	1,120	1,460	2,770	1,850	918	569	532
15	369	764	1,050	1,550	2,310	1,040	1,470	2,510	1,730	969	560	524
16	369	1,120	1,160	2,720	2,000	966	1,420	2,350	1,630	985	556	519
17	370	983	1,020	5,350	1,720	910	1,340	1,980	1,540	960	552	508
18	387	997	930	6,580	1,550	874	1,260	1,770	1,630	947	549	504
19	390	1,040	864	6,940	1,390	855	1,210	1,720	1,750	934	549	504
20	429	1,000	842	5,290	1,260	846	1,240	1,690	1,750	913	550	503
21	465	898	792	3,540	1,170	844	1,170	1,580	1,800	878	555	500
22	484	811	748	2,620	1,110	1,060	1,120	1,650	1,900	829	623	499
23	785	1,230	712	2,140	1,060	1,470	1,100	1,840	1,900	789	567	497
24	756	5,580	683	1,870	1,190	2,080	1,060	2,070	1,650	761	549	499
25	581	3,860	659	1,740	1,200	1,890	1,070	2,260	2,330	742	546	553
26	516	2,320	641	1,580	1,110	2,040	1,210	2,680	1,970	731	542	584
27	481	1,810	634	1,420	1,060	1,810	1,320	2,540	1,600	723	544	549
28	461	1,410	679	1,310	1,000	1,590	1,290	2,670	1,380	723	543	575
29	451	1,190	702	1,220	------	1,510	1,340	2,600	1,240	720	546	636
30	446	1,090	890	1,190	------	1,570	1,380	2,180	1,200	717	544	589
31	443	------	1,070	1,240	------	1,450	------	1,860	------	714	657	------
TOTAL	13,646	36,125	29,614	61,581	38,049	36,245	41,280	69,860	49,840	28,593	18,125	17,853
MEAN	440	1,204	955	1,986	1,359	1,169	1,376	2,254	1,661	922	585	595
MAX	785	5,580	1,570	6,940	2,310	2,080	2,030	3,320	2,330	1,210	701	1,050
MIN	369	442	634	630	938	784	1,060	1,560	1,200	714	542	497
CFSM	2.04	5.57	4.42	9.19	6.29	5.41	6.37	10.4	7.69	4.27	2.71	2.75
IN.	2.35	6.22	5.10	10.61	6.55	6.24	7.11	12.03	8.58	4.92	3.12	3.07
AC-FT	27,070	71,650	58,740	122,100	75,470	71,890	81,880	138,600	98,860	56,710	35,950	35,410

CAL YR 1970 TOTAL 371,185 MEAN 1,017 MAX 6,920 MIN 369 CFSM 4.71 IN 63.93 AC-FT 736,200
WTR YR 1971 TOTAL 440,811 MEAN 1,208 MAX 6,940 MIN 369 CFSM 5.59 IN 75.92 AC-FT 874,300

PEAK DISCHARGE (BASE, 3,700 CFS).--Nov. 24 (0700) 6,450 cfs (7.84 ft); Jan. 19 (1600) 8,460 cfs (8.52 ft).

14179000 Breitenbush River above Canyon Creek, near Detroit, Oreg.

LOCATION.--Lat 44°45'10", long 122°07'40", in SE¼NE¼ sec.36, T.9 S., R.5 E., Marion County, Willamette National Forest, on left bank 600 ft upstream from Canyon Creek, 1.5 miles northeast of Detroit, and at mile 2.0.

DRAINAGE AREA.--106 sq mi.

PERIOD OF RECORD.--June 1932 to current year. Monthly discharge only June 1932, published in WSP 1318. Prior to October 1952, published as "above French Creek, near Detroit."

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft above mean sea level. Prior to Oct. 1, 1952, at site 0.2 mile downstream at datum 13.46 ft lower.

AVERAGE DISCHARGE.--39 years, 573 cfs (73.41 inches per year, 415,100 arre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,950 cfs Jan. 19 (gage height, 9.43 ft); minimum, 116 cfs Oct. 4, 17.
Period of record: Maximum discharge, 16,900 cfs Dec. 22, 1964 (gage height, 14.55 ft); minimum, 87 cfs Sept. 2, 1940.

REMARKS.--Records excellent. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1044: 1943(M). WSP 1248: 1947.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	206	524	585	941	477	807	1,060	807	595	337	672
2	119	205	468	475	870	456	753	1,420	714	608	316	881
3	119	201	455	415	776	453	733	1,810	674	562	296	495
4	118	198	405	381	737	427	748	1,910	734	531	290	350
5	121	222	611	357	654	399	892	1,490	802	541	282	297
6	130	266	1,030	339	590	385	1,080	1,210	879	493	276	273
7	125	262	1,660	324	540	392	1,030	1,370	981	469	270	249
8	123	385	1,240	463	506	393	1,030	1,690	879	472	263	234
9	126	553	933	1,480	521	386	1,550	1,560	858	504	254	225
10	131	452	798	1,750	1,950	546	1,410	1,390	851	497	248	215
11	127	832	877	1,090	1,760	783	1,160	1,500	835	441	242	215
12	124	1,130	736	808	1,470	1,010	977	1,900	852	433	236	208
13	122	698	641	666	1,530	839	902	1,980	874	446	233	200
14	120	504	602	582	1,560	711	913	1,500	877	473	229	198
15	119	425	677	1,350	1,940	615	937	1,310	808	525	224	193
16	118	765	799	2,720	1,470	542	873	1,240	773	525	221	188
17	117	658	648	4,250	1,160	492	788	1,010	729	500	218	185
18	124	626	547	4,920	982	462	729	892	796	498	215	183
19	127	678	485	5,600	840	455	692	873	897	494	213	183
20	155	651	461	3,450	727	463	710	847	911	483	212	180
21	194	558	417	1,990	661	476	666	776	937	462	212	180
22	222	461	386	1,430	620	770	621	828	1,010	417	250	180
23	615	760	361	1,220	583	1,170	602	974	1,030	389	225	180
24	553	5,060	343	1,140	730	1,420	575	1,160	812	372	214	180
25	364	2,920	329	1,120	752	1,200	588	1,290	1,230	366	208	213
26	284	1,480	317	1,040	650	1,340	758	1,490	942	369	205	231
27	241	1,080	312	882	588	1,140	854	1,400	711	365	203	213
28	222	825	350	775	525	950	793	1,470	595	365	202	243
29	211	675	387	715	------	901	815	1,400	521	367	199	304
30	207	593	674	730	------	1,040	856	1,080	537	366	202	269
31	205	------	901	899	------	931	------	892	------	353	271	------
TOTAL	5,803	24,329	19,374	43,946	26,633	22,024	25,842	40,722	24,856	14,281	7,466	8,017
MEAN	187	811	625	1,418	951	710	861	1,314	829	461	241	267
MAX	615	5,060	1,660	5,600	1,950	1,420	1,550	1,980	1,230	608	337	881
MIN	117	198	312	324	506	385	575	776	521	353	199	180
CFSM	1.76	7.65	5.90	13.4	8.97	6.70	8.12	12.4	7.82	4.35	2.27	2.52
IN.	2.04	8.54	6.80	15.42	9.35	7.73	9.07	14.29	8.72	5.01	2.62	2.81
AC-FT	11,510	48,260	38,430	87,170	52,830	43,680	51,260	80,770	49,300	28,330	14,810	15,900

CAL YR 1970 TOTAL 213,459 MEAN 585 MAX 5,670 MIN 117 CFSM 5.52 IN 74.91 AC-FT 423,400
WTR YR 1971 TOTAL 263,293 MEAN 721 MAX 5,600 MIN 117 CFSM 6.80 IN 92.40 AC-FT 522,200

PEAK DISCHARGE (BASE, 4,000 CFS).--Nov. 24 (0730) 6,180 cfs (8.95 ft); Jan. 19 (1400) 6,950 cfs (9.43 ft).

14180500 Detroit Lake near Detroit, Oreg.
(Formerly published as Detroit Reservoir near Detroit)

LOCATION.--Lat 44°43'20", long 122°14'55", in SW¼NW¼ sec.7, T.10 S., R.5 E., Marion County, in control house near right abutment of Detroit Dam on North Santiam River, 4.9 miles west of Detroit, and at mile 60.9.

DRAINAGE AREA.--437 sq mi.

PERIOD OF RECORD.--January 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 453,600 acre-ft July 22 (elevation, 1,568.58 ft); minimum, 150,000 acre-ft Dec. 30 (elevation, 1,447.44 ft).

Period of record: Maximum contents, 457,700 acre-ft June 17, 1960 (elevation, 1,569.74 ft); minimum, 115,500 acre-ft Jan. 30, 1969 (elevation, 1,425.37 ft).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with six 42- by 28-foot control gates. Length of dam is 1,580 ft, built by Corps of Engineers, Storage began in January 1953. Total capacity is 455,100 acre-ft and usable capacity is 340,100 acre-ft between elevations,1,425.0 (proposed lower limit of operation) and 1,569.0 ft (top of spillway gates). Reservoir used for flood control, power development, irrigation, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,430	122,200	1,480	210,900	1,530	331,500
1,440	137,700	1,490	232,000	1,540	360,200
1,450	154,400	1,500	254,600	1,550	390,900
1,460	172,200	1,510	278,700	1,560	424,000
1,470	191,100	1,520	304,400	1,570	458,600

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297,000	222,500	216,100	156,400	244,800	279,900	327,100	388,000	441,600	438,900	449,200	406,300
2	294,700	219,200	210,700	156,500	242,100	277,600	327,900	392,300	440,800	439,500	448,500	407,900
3	292,400	216,900	205,600	155,900	238,700	278,400	329,400	399,000	440,400	440,200	447,700	406,300
4	288,900	214,600	199,600	155,100	235,400	278,900	331,500	405,800	440,300	440,700	446,800	405,600
5	284,500	212,500	195,400	154,100	231,100	280,000	333,500	408,200	440,900	441,100	446,300	404,800
6	282,300	210,200	193,600	154,100	226,600	280,200	337,400	409,100	441,700	441,900	445,500	403,500
7	280,000	208,100	195,600	154,100	221,500	280,400	340,900	410,900	443,100	443,400	444,700	401,200
8	277,700	207,300	194,800	155,800	218,500	280,600	344,000	414,600	441,900	444,900	443,800	397,400
9	275,700	207,100	191,900	163,900	218,000	281,800	351,200	417,700	440,500	446,100	442,800	396,000
10	273,600	205,000	188,200	175,000	225,400	285,000	356,900	419,700	438,900	447,300	441,800	394,600
11	271,400	206,300	185,700	178,300	231,500	289,700	360,300	422,400	437,200	448,100	440,800	393,300
12	269,200	209,300	182,400	174,500	235,800	295,300	362,700	425,900	435,700	448,800	439,600	390,400
13	267,000	208,900	175,200	169,500	241,000	299,500	366,200	428,100	434,500	449,600	438,400	386,400
14	264,800	207,400	169,700	164,800	246,500	302,600	368,000	427,900	433,500	450,400	437,300	384,800
15	262,500	205,600	164,800	166,800	254,500	305,000	370,100	428,300	431,900	451,400	436,100	383,200
16	260,200	206,000	161,200	187,000	258,700	305,500	371,600	428,600	431,900	452,500	434,900	381,400
17	258,000	206,000	158,700	218,400	259,300	306,300	373,600	429,000	432,500	452,500	433,700	380,800
18	255,900	204,800	157,500	253,900	262,000	308,200	373,500	428,700	434,600	452,500	432,500	379,100
19	253,700	204,000	155,900	294,000	263,600	309,800	374,200	427,700	436,400	452,500	431,200	376,400
20	251,800	199,900	154,100	316,100	264,300	311,700	376,300	426,800	437,700	452,600	429,700	376,000
21	250,200	194,800	151,900	320,800	264,400	313,600	378,000	425,200	439,400	452,600	428,100	374,300
22	249,000	188,800	152,100	313,200	264,300	318,000	379,500	424,000	440,700	452,600	426,500	371,500
23	248,800	185,600	152,100	300,400	266,800	323,600	380,800	429,600	442,000	452,500	423,700	370,900
24	248,000	215,200	152,000	288,100	271,000	329,100	381,900	436,200	442,400	452,300	419,700	369,000
25	245,800	230,300	151,600	280,300	275,000	330,200	383,700	442,200	446,100	452,200	417,800	366,800
26	242,900	232,200	151,300	273,500	278,200	330,400	383,300	444,700	445,500	452,000	416,000	363,200
27	239,500	231,600	150,900	265,400	279,600	329,600	384,000	444,900	443,300	451,800	414,300	361,600
28	235,900	230,900	151,100	256,500	280,400	329,100	384,400	445,500	440,600	451,200	411,300	359,500
29	232,200	224,900	150,600	253,100	------	328,100	384,800	444,800	439,700	450,800	407,300	356,500
30	229,000	220,700	151,400	249,700	------	328,200	385,800	443,800	438,700	450,200	405,500	353,200
31	225,700	------	155,400	247,200	------	327,700	------	442,900	------	449,700	404,500	------
MAX	297,000	232,200	216,100	320,800	280,400	330,400	385,800	445,500	446,100	452,600	449,200	407,900
MIN	225,700	185,600	150,600	154,100	218,000	277,600	327,100	388,000	431,900	438,900	404,500	353,200
(†)	1,487.10	1,484.74	1,450.60	1,496.82	1,510.67	1,528.63	1,548.40	1,565.51	1,564.28	1,567.45	1,554.21	1,537.58
(‡)	-73,600	-5,000	-65,300	+91,800	+33,200	+47,300	+58,100	+57,100	-4,200	+11,000	-45,200	-51,300

CAL YR 1970 MAX 451,100 MIN 150,600 AC-FT ‡ -12,400
WTR YR 1971 MAX 452,600 MIN 150,600 AC-FT ‡ +53,900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14181500 North Santiam River at Niagara, Oreg.

LOCATION.--Lat 44°45'10", long 122°17'50", in NE¼NE¼ sec.34, T.9 S., R.4 E., Marion County, on left bank 0.1 mile downstream from Little Sardine Creek, 0.8 mile downstream from Big Cliff Dam, 2.1 miles east of Niagara, and at mile 57.3.

DRAINAGE AREA.--453 sq mi.

PERIOD OF RECORD.--December 1908 to January 1920, October 1921 to March 1922, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as North Fork of Santiam River near Niagara prior to October 1913, and as "above Mayflower Creek, near Detroit" October 1938 to September 1952.

GAGE.--Water-stage recorder. Datum of gage is 1,093.78 ft above mean sea level (Bureau of Public Roads bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

AVERAGE DISCHARGE.--43 years (1909-19, 1938-71), 2,334 cfs (69.97 inches per year, 1,691,000 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 12,200 cfs Jan. 23 (gage height, 8.30 ft); minimum, 544 cfs July 26; minimum daily, 936 cfs July 7.

Period of record: Maximum discharge, 63,200 cfs Nov. 22, 1909 (gage height, 16.4 ft, from floodmark, site and datum then in use), from rating curve extended above 35,000 cfs; minimum, 19 cfs Aug. 21, 1963; minimum daily, 430 cfs Sept. 23-25, 1915.

REMARKS.--Records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500) and Big Cliff Reservoir (usable capacity for reregulating purposes, 2,930 acre-ft). No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1288: 1914-18, 1920. WSP 1718: 1953-54.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,720	2,600	4,800	2,100	4,620	2,230	3,610	2,720	3,930	1,920	1,350	1,710
2	1,750	2,600	4,840	2,180	4,680	3,070	2,410	2,850	3,330	1,930	1,430	2,360
3	1,770	2,040	4,940	2,010	4,640	1,730	2,130	3,030	2,880	1,590	1,390	2,820
4	2,180	1,940	4,920	2,210	4,700	1,580	2,190	3,390	2,930	1,680	1,390	1,710
5	2,730	2,050	5,060	1,970	4,660	1,250	2,260	4,130	2,740	1,610	1,210	1,590
6	1,730	2,150	5,280	1,470	4,680	1,600	2,280	4,000	2,710	1,410	1,310	1,560
7	1,810	2,240	5,500	1,510	4,660	1,500	2,230	4,040	3,060	936	1,300	2,180
8	1,890	2,320	5,120	1,460	3,600	1,660	2,690	4,080	3,790	968	1,340	2,770
9	1,760	2,390	5,080	1,820	2,350	1,080	2,940	4,050	3,900	1,200	1,460	1,600
10	1,620	2,880	5,080	1,810	3,080	1,070	2,930	4,050	3,880	1,160	1,370	1,530
11	1,770	2,970	5,140	2,410	3,230	1,440	2,630	4,050	3,870	1,140	1,330	1,650
12	1,590	3,090	5,100	5,260	2,490	1,550	2,710	5,000	3,870	1,140	1,420	2,180
13	1,730	2,980	5,120	5,280	2,710	1,650	2,170	6,150	3,860	1,150	1,410	2,800
14	1,660	2,860	5,220	5,390	2,740	1,440	2,370	5,760	3,870	1,140	1,380	1,530
15	1,680	2,890	5,320	4,650	2,910	1,460	2,760	5,010	3,900	1,130	1,370	1,620
16	1,710	2,940	5,280	1,060	3,200	1,870	2,550	4,830	2,880	1,140	1,400	1,600
17	1,660	2,950	3,970	1,090	3,790	1,640	2,410	3,760	2,500	1,480	1,380	1,060
18	1,710	3,000	3,040	1,110	2,460	1,210	2,410	3,710	1,960	1,700	1,380	1,490
19	1,720	3,450	2,860	1,160	2,520	1,160	2,750	4,000	2,410	1,580	1,410	2,000
20	1,720	5,060	2,820	2,110	2,490	1,000	1,790	3,890	2,350	1,390	1,590	1,050
21	1,740	5,060	2,980	5,710	2,430	1,020	1,740	4,030	2,420	1,360	1,680	1,420
22	1,760	5,080	1,540	9,940	2,450	1,100	1,800	3,990	2,740	1,410	1,610	2,090
23	2,950	5,140	1,540	11,800	1,070	2,230	1,810	1,030	2,840	1,400	2,220	1,060
24	2,920	2,710	1,540	11,400	1,060	3,750	1,720	1,000	2,730	1,240	2,790	1,600
25	2,600	3,120	1,570	8,990	1,210	4,640	1,900	1,700	2,790	1,240	1,590	2,210
26	2,940	4,900	1,520	7,630	1,060	5,480	2,840	4,370	3,820	1,180	1,640	2,820
27	2,710	4,900	1,530	7,650	1,680	5,280	2,970	5,000	3,860	1,260	1,610	1,680
28	2,670	4,820	1,600	7,630	1,640	4,250	2,840	4,960	3,840	1,650	2,230	2,310
29	2,950	4,780	2,150	4,580	------	4,250	2,940	5,540	2,640	1,330	2,800	2,820
30	2,550	4,780	2,970	4,580	------	4,350	2,800	4,720	2,590	1,240	1,650	2,920
31	2,410	------	2,330	4,620	------	4,120	------	3,910	------	1,500	1,630	------
TOTAL	64,110	100,690	115,760	132,590	82,810	71,660	73,580	122,750	94,890	42,204	49,070	57,740
MEAN	2,068	3,356	3,734	4,277	2,958	2,312	2,453	3,960	3,163	1,361	1,583	1,925
MAX	2,950	5,140	5,500	11,800	4,700	5,480	3,610	6,150	3,930	1,930	2,800	2,920
MIN	1,590	1,940	1,520	1,060	1,060	1,000	1,720	1,000	1,960	936	1,210	1,050
AC-FT	127,200	199,700	229,600	263,000	164,300	142,100	145,900	243,500	188,200	83,710	97,330	114,500
MEAN†	872	3,270	2,672	5,770	3,560	3,080	3,428	4,889	3,092	1,540	848	1,062
CFSM†	1.92	7.22	5.90	12.7	7.86	6.80	7.57	10.8	6.83	3.40	1.87	2.34
IN.†	2.22	8.06	6.80	14.69	8.18	7.84	8.45	12.45	7.62	3.92	2.16	2.62
AC-FT†	53,600	194,700	164,300	354,800	197,500	189,400	204,000	300,600	184,000	94,710	52,130	63,200

CAL YR 1970 TOTAL 868,424 MEAN 2,379 MAX 11,700 MIN 920 AC-FT 1,723,000 MEAN† 2,363 CFSM† 5.22 IN.† 70.84 AC-FT† 1,711,000
WTR YR 1971 TOTAL 1,007,854 MEAN 2,761 MAX 11,800 MIN 936 AC-FT 1,999,000 MEAN† 2,836 CFSM† 6.26 IN.† 85.00 AC-FT† 2,053,000

† Adjusted for change in contents of Detroit Lake.

14182500 Little North Santiam River near Mehama, Oreg.

LOCATION.--Lat 44°47'30", long 122°34'40", in NW¼ sec.16, T.9 S., R.2 E., Marion County, on left bank 2.0 miles east of Mehama and at mile 2.0.

DRAINAGE AREA.--112 sq mi at cableway 1.2 miles downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1931 to current year. Records for July to September 1924 and July to September 1931 at site 4 miles upstream not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Datum of gage is 655.41 ft above mean sea level. Prior to June 12, 1948, nonrecording gage at about same site and datum.

AVERAGE DISCHARGE.--40 years, 771 cfs (93.48 inches per year, 558,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,900 cfs Jan. 19 (gage height, 12.04 ft); minimum, 45 cfs Aug. 29, 30.
Period of record: Maximum discharge, 36,000 cfs Dec. 22, 1964 (gage height, 16.73 ft), from rating curve extended above 17,000 cfs; minimum, 13 cfs Aug. 30, 1961.

REMARKS.--Records good. No regulation or diversion above station. Records herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 754: 1932. WSP 1218: 1934, 1936, 1949-50. WSP 1935: Maximum only, 1932-34, 1936, 1938, 1943, 1945-49, 1950(M,P), 1951-53(M), 1954(M,P), 1955(M), 1956(M,P), 1957(M), 1958-59(M,P). WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	276	838	1,390	1,510	561	1,200	1,060	675	414	81	840
2	56	248	722	968	1,220	518	1,000	1,510	588	388	76	1,930
3	53	224	845	740	939	650	800	1,820	536	355	73	1,390
4	52	203	810	614	873	605	800	1,820	562	328	70	646
5	59	215	1,330	522	726	523	1,000	1,310	627	311	68	401
6	64	460	2,220	465	627	491	1,200	987	666	286	66	303
7	70	478	2,770	420	553	571	1,100	1,180	739	260	64	235
8	60	1,110	1,930	1,270	511	691	1,230	1,560	626	248	62	193
9	63	1,900	1,330	5,010	605	630	2,420	1,230	580	272	59	163
10	127	1,360	1,060	4,240	3,420	1,040	2,110	1,070	616	278	57	142
11	102	2,210	1,310	2,180	2,390	2,080	1,630	1,210	625	246	56	143
12	84	2,970	1,010	1,460	1,950	2,240	1,320	1,620	604	218	54	127
13	75	1,580	810	1,090	1,810	1,820	1,170	1,760	656	205	53	113
14	68	976	768	873	1,760	1,390	1,150	1,180	903	197	53	103
15	63	722	1,050	1,520	2,540	1,140	1,160	1,010	710	194	51	95
16	60	1,210	1,430	3,550	1,760	915	1,010	1,260	598	189	50	88
17	58	1,070	1,040	4,950	1,240	768	891	962	528	175	49	80
18	73	992	810	5,510	1,040	673	816	811	599	163	48	77
19	125	1,430	674	8,870	899	624	729	813	751	156	47	75
20	178	1,480	602	3,880	759	620	742	788	659	145	47	72
21	383	1,210	522	2,220	687	640	714	677	612	135	48	69
22	469	845	465	1,690	688	1,080	658	689	652	124	80	67
23	1,820	1,140	411	2,090	672	2,220	674	867	638	115	69	64
24	1,940	7,260	375	2,200	1,300	2,600	683	1,060	499	108	54	65
25	1,120	3,980	347	2,410	1,350	2,000	681	1,100	1,720	102	50	105
26	734	2,080	325	2,160	968	1,980	852	1,380	1,140	97	48	237
27	522	1,970	325	1,610	798	1,700	1,000	1,140	741	92	47	174
28	411	1,460	403	1,320	671	1,300	883	1,160	575	90	47	275
29	351	1,090	716	1,130	------	1,300	795	1,020	474	87	46	795
30	321	952	1,660	1,270	------	1,800	788	785	427	83	46	515
31	300	------	2,670	1,650	------	1,500	------	638	------	82	83	------
TOTAL	9,921	43,101	31,578	69,272	34,266	36,670	31,206	35,477	20,326	6,143	1,802	9,582
MEAN	320	1,437	1,019	2,235	1,224	1,183	1,040	1,144	678	198	58.1	319
MAX	1,940	7,260	2,770	8,870	3,420	2,600	2,420	1,820	1,720	414	83	1,930
MIN	52	203	325	420	511	491	658	638	427	82	46	64
CFSM	2.86	12.8	9.10	20.0	10.9	10.6	9.29	10.2	6.05	1.77	.52	2.85
IN.	3.30	14.32	10.49	23.01	11.38	12.18	10.36	11.78	6.75	2.04	.60	3.18
AC-FT	19,680	85,490	62,630	137,400	67,970	72,730	61,900	70,370	40,320	12,180	3,570	19,010

CAL YR 1970 TOTAL 275,126 MEAN 754 MAX 7,260 MIN 32 CFSM 6.73 IN 91.38 AC-FT 545,700
WTR YR 1971 TOTAL 329,344 MEAN 902 MAX 8,870 MIN 46 CFSM 8.05 IN 109.39 AC-FT 653,300

PEAK DISCHARGE (BASE, 8,200 CFS).--Nov. 24 (0630) 10,900 cfs (10.80 ft); Jan. 19 (1200) 14,900 cfs (12.04 ft).

14183000 North Santiam River at Mehama, Oreg.

LOCATION.--Lat 44°47'20", long 122°37'00", in NW¼ sec.18, T.9 S., R.2 E., Marion County, on right bank 300 ft downstream from highway bridge at Mehama, 0.5 mile downstream from Little North Santiam River, and at mile 38.71.

DRAINAGE AREA.--655 sq mi at cableway 0.8 mile downstream, where all discharge measurements are made.

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to September 1914, September 1921 to current year. Monthly discharge only September 1921, published in WSP 1318. Prior to October 1913, published as North Fork of Santiam River at Mehama.

GAGE.--Water-stage recorder. Datum of gage is 602.49 ft above mean sea level. Prior to June 15, 1933, nonrecording gage at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--55 years (1905-6, 1910-14, 1921-71), 3,342 cfs (2,421,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,100 cfs Jan. 19 (gage height, 8.88 ft); minimum, 796 cfs July 26; minimum daily, 1,270 cfs July 8.

Period of record: Maximum discharge, 76,600 cfs Dec. 28, 1945 (gage height, 15.37 ft), from rating curve extended above 36,000 cfs on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft Nov. 20, 1921, from graph based on gage readings, and Jan. 6, 1923, from floodmark, at site then in use; minimum discharge, 254 cfs Aug. 3, 1970; minimum daily, 420 cfs Sept. 18, 1924.

REMARKS.--Records excellent. Flow regulated since 1953 by Detroit Reservoir (see station 14180500) and Big Cliff Reservoir (usable capacity for reregulating purposes, 2,930 acre-ft). No diversion above station. All records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 739: 1922-23(M). WSP 1044: 1943. WSP 1248: 1906, 1911-14, 1924(M), 1926, 1934-36(M), 1937, 1938(M), 1942(M). WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,750	2,850	6,100	4,450	6,650	3,050	5,570	4,200	4,940	2,560	1,560	2,670
2	1,780	2,850	6,030	3,820	6,370	3,960	4,290	4,710	4,340	2,410	1,500	4,440
3	1,820	2,310	6,490	3,300	5,980	3,100	3,480	5,380	3,660	2,130	1,510	4,350
4	2,100	2,110	6,340	3,190	6,150	2,720	3,570	5,480	3,750	2,050	1,510	2,630
5	2,660	2,270	6,970	2,870	5,870	2,290	3,880	5,890	3,600	2,010	1,370	2,070
6	1,950	2,610	8,280	2,330	5,760	2,490	4,290	5,380	3,620	1,910	1,380	1,980
7	1,840	2,760	9,600	2,180	5,610	2,630	3,860	5,600	3,900	1,280	1,400	2,370
8	1,920	3,530	7,960	3,490	4,780	2,950	4,410	6,050	4,630	1,270	1,440	2,930
9	1,850	4,490	7,000	8,470	3,320	2,330	6,910	5,670	4,690	1,540	1,520	2,040
10	1,750	4,360	6,600	7,810	7,270	3,370	6,350	5,440	4,710	1,530	1,480	1,750
11	1,880	5,570	6,880	5,600	6,550	4,940	5,360	5,600	4,700	1,490	1,420	1,840
12	1,670	6,800	5,490	7,220	5,070	5,580	5,000	6,690	4,680	1,440	1,500	2,260
13	1,900	4,880	6,290	6,860	5,140	4,860	4,170	8,170	4,730	1,440	1,530	2,880
14	1,710	4,100	6,310	6,660	5,040	3,980	4,190	7,370	5,000	1,400	1,460	1,950
15	1,730	3,800	6,770	8,120	6,430	3,560	4,520	6,360	4,820	1,400	1,450	1,760
16	1,750	4,450	7,510	6,860	5,630	3,490	4,060	6,440	3,820	1,390	1,490	1,730
17	1,710	4,300	5,920	8,770	5,650	3,090	3,890	5,180	3,240	1,640	1,470	1,340
18	1,780	4,270	4,380	9,460	4,300	2,490	3,670	4,760	2,770	1,890	1,450	1,520
19	1,840	5,160	3,970	14,500	3,990	2,230	3,870	5,100	3,260	1,790	1,490	2,010
20	1,890	6,740	3,710	8,580	3,760	2,130	3,210	4,970	3,160	1,650	1,610	1,390
21	2,110	6,520	3,860	8,920	3,580	2,090	2,840	4,960	3,150	1,520	1,780	1,450
22	2,220	6,160	2,480	12,100	3,580	3,100	2,840	4,930	3,460	1,610	1,760	2,070
23	4,670	6,580	2,170	15,300	2,390	5,180	2,890	2,600	3,650	1,570	2,200	1,400
24	5,070	13,300	2,110	15,100	2,820	7,350	2,890	2,280	3,320	1,430	2,780	1,620
25	3,880	8,660	2,130	13,400	3,080	7,270	2,990	2,890	4,950	1,380	1,850	2,310
26	3,710	7,960	2,040	11,000	2,500	8,260	3,950	5,670	5,190	1,320	1,740	3,060
27	3,280	7,840	2,020	9,990	2,840	7,750	4,460	6,590	4,840	1,390	1,700	2,100
28	3,120	6,940	2,300	9,510	2,700	6,380	4,210	6,330	4,680	1,710	2,180	2,590
29	3,300	6,340	3,400	6,590	------	6,400	4,110	6,790	3,460	1,500	2,780	3,690
30	2,960	6,260	5,800	6,400	------	7,000	4,020	5,970	3,160	1,400	1,920	3,540
31	2,680	------	6,720	6,840	------	6,500	------	4,800	------	1,560	1,770	------
TOTAL	74,180	156,770	164,630	239,690	132,810	132,460	123,750	168,250	121,880	50,610	52,000	69,740
MEAN	2,393	5,226	5,311	7,732	4,743	4,273	4,125	5,427	4,063	1,633	1,677	2,325
MAX	5,070	13,300	9,600	15,300	7,270	8,260	6,910	8,170	5,190	2,560	2,780	4,440
MIN	1,670	2,110	2,020	2,180	2,390	2,090	2,840	2,280	2,770	1,270	1,370	1,340
AC-FT	147,100	311,000	326,500	475,400	263,400	262,700	245,500	333,700	241,700	100,400	103,100	138,300

CAL YR 1970 TOTAL 1,277,770 MEAN 3,501 MAX 14,900 MIN 1,010 AC-FT 2,534,000
WTR YR 1971 TOTAL 1,486,770 MEAN 4,073 MAX 15,300 MIN 1,270 AC-FT 2,949,000

14185000 South Santiam River below Cascadia, Oreg.

LOCATION.--Lat 44°23'35", long 122°30'35", in SE¼ sec.36, T.13 S., R.2 E., Linn County, on right bank 100 ft downstream from bridge at Cascadia ranger station, 0.5 mile downstream from Mouse Creek, 0.5 mile upstream from Deer Creek, 1.5 miles southwest of Cascadia, and at mile 48.5.

DRAINAGE AREA.--174 sq mi at gaging cable 0.7 mile upstream.

PERIOD OF RECORD.--September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 759.88 ft above mean sea level. Prior to Nov. 1, 1935, nonrecording gage.

AVERAGE DISCHARGE.--36 years, 821 cfs (64.08 inches per year, 594,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,500 cfs Jan. 18 (gage height, 13.92 ft); minimum, 47 cfs Oct. 3-5.
Period of record: Maximum discharge, 27,600 cfs Dec. 22, 1964 (gage height, 19.68 ft), from rating curve extended above 14,000 cfs; minimum, 23 cfs Dec. 1, 2, 1936.

REMARKS.--Records fair. No regulation or diversion above station. All records given herein are for measuring site. Records of water temperatures for water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	254	782	1,280	1,360	596	1,490	1,190	1,010	510	126	464
2	50	243	673	822	1,210	547	1,310	1,450	886	492	118	822
3	48	229	966	589	1,010	701	1,200	1,770	814	453	110	516
4	47	222	918	458	1,070	680	1,170	1,810	814	431	106	330
5	55	262	1,090	380	1,010	568	1,370	1,520	814	410	103	250
6	71	353	1,620	335	886	528	1,560	1,270	854	390	101	222
7	75	322	2,510	298	766	715	1,370	1,420	910	371	97	185
8	64	540	1,860	974	701	846	1,370	1,670	814	357	92	158
9	63	950	1,300	3,790	743	766	2,520	1,450	782	371	87	140
10	86	790	1,040	4,380	3,220	1,380	2,310	1,330	750	375	84	126
11	78	1,660	1,290	2,480	2,510	2,350	1,850	1,430	715	344	81	126
12	68	2,440	1,010	1,660	2,070	3,170	1,590	1,740	715	326	76	116
13	62	1,370	790	1,260	1,930	2,060	1,410	2,010	750	314	73	106
14	57	910	750	1,060	1,810	1,610	1,330	1,500	800	306	73	101
15	53	673	1,750	4,140	2,380	1,340	1,290	1,360	740	302	71	94
16	51	1,170	2,020	6,420	1,910	1,100	1,180	1,350	660	298	67	84
17	49	926	1,320	9,790	1,470	918	1,100	1,130	580	286	64	75
18	64	990	910	11,600	1,290	782	1,060	990	680	270	62	70
19	101	1,240	673	10,600	1,160	736	966	982	720	258	61	64
20	122	1,290	561	6,440	942	782	982	990	680	240	59	58
21	188	1,170	464	3,270	838	870	942	886	640	226	59	56
22	278	902	385	2,160	814	1,780	894	910	660	206	124	53
23	846	1,690	335	2,150	798	3,110	934	1,040	660	194	101	51
24	1,010	6,680	302	2,160	1,180	3,510	950	1,170	561	185	72	52
25	659	3,830	274	2,210	1,300	2,560	950	1,240	1,190	173	63	124
26	486	2,160	254	1,910	1,010	2,730	1,010	1,530	958	161	59	306
27	357	2,130	243	1,520	854	2,190	1,080	1,360	750	150	58	219
28	306	1,440	371	1,320	722	1,970	1,010	1,320	645	143	59	353
29	286	1,060	666	1,170	------	1,850	1,010	1,180	568	138	56	774
30	278	918	1,330	1,170	------	2,070	1,020	1,050	528	130	56	547
31	266	------	2,430	1,390	------	1,820	------	926	------	130	103	------
TOTAL	6,276	38,814	30,387	89,186	36,964	46,635	38,228	40,974	22,648	8,940	2,521	6,642
MEAN	202	1,294	980	2,877	1,320	1,504	1,274	1,322	755	288	81.3	221
MAX	1,010	6,680	2,510	11,600	3,220	3,510	2,520	2,010	1,190	510	126	822
MIN	47	222	243	298	701	528	894	886	528	130	56	51
CFSM	1.16	7.44	5.63	16.5	7.59	8.64	7.32	7.60	4.34	1.66	.47	1.27
IN.	1.34	8.30	6.50	19.07	7.90	9.97	8.17	8.76	4.84	1.91	.54	1.42
AC-FT	12,450	76,990	60,270	176,900	73,320	92,500	75,830	81,270	44,920	17,730	5,000	13,170

CAL YR 1970 TOTAL 279,920 MEAN 767 MAX 7,800 MIN 31 CFSM 4.41 IN 59.84 AC-FT 555,200
WTR YR 1971 TOTAL 368,215 MEAN 1,009 MAX 11,600 MIN 47 CFSM 5.80 IN 78.72 AC-FT 730,400

PEAK DISCHARGE (BASE, 5,700 CFS).--Nov. 24 (1200) 8,700 cfs (10.65 ft); Jan. 18 (0400) 15,500 cfs (13.92 ft).

14185800 Middle Santiam River near Cascadia, Oreg.

LOCATION.--Lat 44°30'55", long 122°22'15", in NE¼ sec.19, T.12 S., R.4 E., Linn County, on right bank 5.6 miles downstream from Bear Creek, 10 miles northeast of Cascadia, and at mile 17.5.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 633 cfs (82.66 inches per year, 458,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,480 cfs Jan. 19 (gage height, 9.71 ft); minimum, 47 cfs Oct. 17.
Period of record: Maximum discharge, 22,900 cfs Dec. 22, 1964 (gage height, 15.75 ft, from floodmark), from rating curve extended above 7,000 cfs on basis of slope-area measurement of peak flow; minimum, 33 cfs Sept. 28, 29, 1967.

REMARKS.--Records excellent. No regulation or diversion above station. Records of wat-- temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	223	740	805	1,130	572	1,040	1,130	785	448	122	648
2	53	205	648	640	1,030	548	938	1,500	700	424	116	830
3	52	190	652	552	890	576	860	1,840	652	396	113	472
4	51	180	596	488	840	524	872	1,760	680	371	109	305
5	56	208	850	440	730	472	1,070	1,400	705	350	105	238
6	62	260	1,180	403	656	448	1,290	1,220	755	332	104	205
7	74	265	1,700	375	608	496	1,190	1,610	795	311	100	178
8	69	556	1,390	670	576	500	1,150	1,480	725	299	96	157
9	67	835	1,060	2,270	628	476	1,850	1,320	690	302	93	143
10	83	675	938	2,680	2,440	845	1,660	1,280	700	302	89	136
11	72	1,270	1,100	1,640	2,030	1,180	1,340	1,400	665	278	86	134
12	64	1,730	914	1,140	1,770	1,430	1,110	1,750	665	263	83	123
13	59	1,080	785	908	1,700	1,130	1,030	1,950	715	253	81	116
14	54	765	765	775	1,620	926	1,020	1,500	815	245	80	109
15	51	612	914	1,400	2,020	790	1,040	1,340	715	240	78	104
16	49	974	1,110	2,840	1,600	685	968	1,360	648	233	75	98
17	47	770	890	5,340	1,230	608	878	1,080	600	223	74	93
18	62	780	740	6,580	1,030	556	815	962	675	210	72	88
19	77	962	640	6,800	884	528	765	956	710	200	71	86
20	132	992	592	4,130	770	528	775	938	656	190	69	83
21	180	850	532	2,340	700	548	725	840	644	180	71	81
22	243	705	480	1,630	665	998	680	855	656	170	116	78
23	845	1,370	436	1,430	632	1,760	680	980	656	161	91	75
24	860	5,630	403	1,390	1,030	2,360	656	1,120	560	155	75	75
25	568	3,380	375	1,340	1,020	1,810	656	1,190	1,230	149	71	120
26	406	1,970	354	1,210	835	1,810	795	1,420	850	143	68	198
27	323	1,550	347	1,050	735	1,490	850	1,270	660	140	67	138
28	278	1,140	403	944	644	1,290	820	1,270	572	136	67	253
29	260	938	476	866	------	1,260	830	1,160	504	132	64	413
30	250	845	800	914	------	1,490	902	974	468	127	64	296
31	238	------	1,220	1,110	------	1,250	------	825	------	125	149	------
TOTAL	5,739	31,910	24,030	55,100	30,443	29,884	29,255	39,680	20,851	7,488	2,719	6,073
MEAN	185	1,064	775	1,777	1,087	964	975	1,280	695	242	87.7	202
MAX	860	5,630	1,700	6,800	2,440	2,360	1,850	1,950	1,230	448	149	830
MIN	47	180	347	375	576	448	656	825	468	125	64	75
CFSM	1.78	10.2	7.45	17.1	10.5	9.27	9.38	12.3	6.68	2.33	.84	1.94
IN.	2.05	11.41	8.60	19.71	10.89	10.69	10.46	14.19	7.46	2.68	.97	2.17
AC-FT	11,380	63,290	47,660	109,300	60,380	59,270	58,030	78,710	41,360	14,850	5,390	12,050

CAL YR 1970 TOTAL 230,635 MEAN 632 MAX 6,970 MIN 38 CFSM 6.08 IN 82.50 AC-FT 457,500
WTR YR 1971 TOTAL 283,172 MEAN 776 MAX 6,800 MIN 47 CFSM 7.46 IN 101.29 AC-FT 561,700

PEAK DISCHARGE.(BASE, 4,500 CFS).--Nov. 24 (1030) 6,770 cfs (8.73 ft); Jan. 19 (1300) 8,480 cfs (9.71 ft).

14185900 Quartzville Creek near Cascadia, Oreg.

LOCATION.--Lat 44°32'25", long 122°26'05", in NW¼ sec.10, T.12 S., R.3 E., Linn County, BLM Land, on right bank 80 ft downstream from Panther Creek, 10 miles north of Cascadia, and at mile 6.6.

DRAINAGE AREA.--99.2 sq mi.

PERIOD OF RECORD.--August 1963 to November 1964 (destroyed by flood of December 1964). October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (from topographic map). August 13, 1963, to Dec. 22, 1964 water-stage recorder on left bank at present datum.

AVERAGE DISCHARGE.--7 years (1963-64, 1965-71), 659 cfs (90.21 inches per year, 477,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,500 cfs Jan. 19 (gage height, 14.64 ft); minimum, 35 cfs Oct. 4, 5.
Period of record: Maximum discharge, 12,500 cfs Jan. 19, 1971 (gage height, 14.64 ft); minimum 19 cfs Sept. 24-29, 1967.
Maximum discharge, 36,500 cfs Dec. 22, 1964, from slope-area measurement of peak flow.

REMARKS.--Records good except those for February through June, which are poor. No regulation or diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	223	2,490	1,170	1,400	439	1,190	1,110	655	338	84	1,340
2	39	202	575	786	1,140	417	1,080	1,470	600	317	81	1,770
3	37	183	630	620	884	520	1,020	1,760	566	289	77	726
4	36	173	548	503	764	458	1,050	1,710	575	271	75	411
5	39	199	1,250	440	630	385	1,310	1,270	570	261	75	299
6	77	278	2,080	399	548	346	1,420	1,100	575	244	73	241
7	67	303	3,260	355	494	394	1,360	1,170	590	229	71	202
8	54	786	1,850	966	462	483	1,520	1,300	566	217	67	178
9	54	1,220	1,180	3,960	586	435	2,820	1,240	575	232	65	158
10	83	870	972	3,980	3,570	1,430	2,110	1,190	585	235	64	145
11	69	2,110	1,320	1,840	2,170	2,240	1,670	1,170	570	211	62	140
12	58	2,700	930	1,150	1,850	2,400	1,330	1,390	580	193	60	130
13	51	1,270	732	852	1,730	1,750	1,230	1,600	585	183	58	113
14	47	786	744	695	1,720	1,270	1,260	1,230	580	180	56	108
15	44	610	1,120	2,930	2,340	1,010	1,230	1,110	575	175	56	95
16	40	1,880	1,510	5,140	1,590	823	1,130	1,150	548	173	52	90
17	39	1,170	990	6,540	1,110	703	1,020	1,010	503	165	52	85
18	73	972	710	6,720	919	645	981	876	580	155	51	80
19	115	1,170	570	8,310	760	630	905	870	600	148	51	75
20	220	1,140	507	3,680	634	662	904	864	590	140	51	75
21	348	990	431	1,880	567	726	823	750	590	133	51	75
22	449	756	375	1,260	553	1,680	737	750	552	123	84	70
23	1,920	1,950	338	1,160	553	2,730	741	780	512	115	75	70
24	1,470	6,900	306	1,290	1,380	3,090	740	906	407	108	60	70
25	804	4,260	285	1,420	1,210	2,120	740	942	1,480	104	52	100
26	530	3,540	268	1,300	816	2,160	849	1,150	870	99	49	160
27	383	3,510	268	1,040	652	1,840	972	1,120	575	97	47	120
28	313	3,490	419	916	533	1,500	870	1,100	458	94	47	180
29	282	3,430	620	859	------	1,560	883	984	383	90	47	400
30	264	3,520	2,430	1,030	------	1,910	904	810	348	88	47	320
31	247	------	2,680	1,480	------	1,530	------	665	------	86	170	------
TOTAL	8,292	50,591	32,388	64,671	31,565	38,286	34,799	34,547	17,743	5,493	2,010	8,026
MEAN	267	1,686	1,045	2,086	1,127	1,235	1,160	1,114	591	177	64.8	268
MAX	1,920	6,900	3,260	8,310	3,570	3,090	2,820	1,760	1,480	338	170	1,770
MIN	36	173	268	355	462	346	737	665	348	86	47	70
CFSM	2.69	17.0	10.5	21.0	11.4	12.4	11.7	11.2	5.96	1.78	.65	2.70
IN.	3.11	18.97	12.15	24.25	11.84	14.36	13.05	12.96	6.65	2.06	.75	3.01
AC-FT	16,450	100,300	64,240	128,300	62,610	75,940	69,020	68,520	35,190	10,900	3,990	15,920

CAL YR 1970 TOTAL 265,465 MEAN 727 MAX 8,460 MIN 25 CFSM 7.33 IN 99.55 AC-FT 526,500
WTR YR 1971 TOTAL 328,411 MEAN 900 MAX 8,310 MIN 36 CFSM 9.07 IN 123.15 AC-FT 651,400

PEAK DISCHARGE (BASE, 4,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0500	13.41	9,500	1-19	1100	14.64	12,500
12-30	2130	11.63	5,950	2-10	1130	10.84	4,640
1-10	0130	11.45	5,640				

14186100 Green Peter Lake near Foster, Oreg.
(Formerly published as Green Peter Reservoir near Foster)

LOCATION.--Lat 44°27'10", long 122°32'40", in NE¼SE¼ sec.10, T.13 S., R.2 E., Linn County, in Green Peter Dam on Middle Santiam River 7.0 miles northeast of Foster and at mile 5.7.

DRAINAGE AREA.--273 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 412,000 acre-ft June 25 (elevation, 1,010.60 ft); minimum, 162,100 acre-ft Dec. 21 (elevation, 923.07 ft).

Period of record: Maximum contents, 415,300 acre-ft June 25, 1969 (elevation, 1,011.53 ft); minimum, 125,100 acre-ft Nov. 23, 24, 1968 (elevation, 903.93 ft).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with ogee spillway completed in 1966 by Corps of Engineers; controlled storage began Oct. 6, 1966. Total capactiy, 428,100 acre-ft and usable capacity 330,800 acre-ft between elevations 887.0 (proposed lower limit of operation) and 1,015 ft (top of spillway gates). Reservoir used for flood control, power development, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet).

920	155,700	980	309,700
940	199,900	1,000	374,800
960	251,100	1,011	413,400

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241,200	204,500	215,100	177,300	255,800	275,200	321,200	368,600	406,800	410,100	404,700	363,700
2	239,400	202,500	210,200	176,700	253,200	272,500	321,000	371,300	406,500	410,200	404,300	365,300
3	237,400	201,100	205,700	175,200	249,600	273,100	320,400	375,500	406,000	410,100	403,600	364,500
4	235,400	199,600	200,600	173,300	246,100	273,300	320,000	379,600	407,400	409,800	403,300	363,400
5	233,500	198,400	197,500	171,100	241,600	273,800	322,600	380,500	407,900	409,300	402,800	362,100
6	231,800	197,300	197,000	169,000	236,800	273,800	326,100	378,100	409,700	408,900	403,000	360,300
7	229,900	196,400	200,000	166,600	232,600	273,800	328,800	376,100	410,400	409,200	402,400	358,600
8	228,000	197,400	199,300	168,300	228,300	274,200	331,800	373,500	409,600	409,400	401,200	356,800
9	226,600	199,600	196,300	181,000	227,600	276,000	339,900	373,400	409,200	410,100	400,700	353,200
10	225,000	200,600	192,500	194,600	236,700	281,600	345,800	371,300	410,000	410,200	400,200	350,400
11	223,200	206,500	189,900	198,600	238,500	286,800	349,700	369,400	409,800	410,100	399,600	346,400
12	221,500	213,600	185,900	196,400	238,800	292,200	352,400	369,200	409,300	410,200	398,900	342,200
13	219,900	212,500	181,200	192,800	238,600	295,100	354,600	369,400	409,300	410,300	397,300	338,300
14	218,100	209,700	176,700	188,600	239,700	296,100	357,000	369,800	409,300	409,900	394,900	334,500
15	216,400	207,500	173,600	193,300	245,700	296,200	359,100	373,600	409,400	409,800	392,400	331,000
16	214,500	207,300	172,200	211,400	249,400	295,600	360,900	378,300	409,200	410,000	390,200	327,100
17	213,200	205,000	169,000	241,000	251,000	296,600	362,300	381,600	408,900	409,800	388,400	324,300
18	212,400	202,600	167,900	275,200	254,200	298,100	363,400	384,200	409,400	409,500	385,900	321,200
19	211,400	201,600	166,400	314,500	256,600	299,100	364,000	387,000	410,000	409,200	384,100	317,800
20	210,300	198,000	164,600	332,900	257,300	300,500	364,900	389,600	410,400	408,900	383,100	314,700
21	209,600	193,600	162,400	336,100	257,600	301,800	365,400	391,400	410,400	408,600	381,900	312,400
22	209,200	188,500	162,700	329,200	258,000	307,500	365,600	393,700	410,200	408,100	380,200	310,200
23	212,200	187,100	162,900	319,800	260,200	313,600	366,200	397,800	409,700	408,000	378,900	307,000
24	214,500	212,300	163,200	311,300	265,700	319,000	366,600	402,000	409,500	407,900	376,600	303,400
25	215,100	225,000	163,400	303,600	270,500	320,200	367,700	403,800	411,600	407,400	374,200	299,700
26	214,500	226,500	163,500	294,700	273,600	321,600	365,600	405,900	410,300	407,100	371,800	296,200
27	213,200	227,000	163,900	282,300	275,400	321,700	366,200	406,400	410,000	406,800	370,100	292,400
28	211,600	224,900	164,800	269,000	276,400	321,900	366,300	406,900	409,800	406,800	367,700	289,600
29	210,000	222,300	164,900	261,800	------	322,000	366,500	407,700	409,700	406,500	364,900	287,800
30	208,000	219,300	169,900	259,000	------	322,600	367,100	407,700	410,400	405,900	362,600	285,000
31	206,200	------	176,200	257,600	------	321,900	------	407,500	------	405,500	361,600	------
MAX	241,200	227,000	215,100	336,100	276,400	322,600	367,700	407,700	411,600	410,300	404,700	365,300
MIN	206,200	187,100	162,400	166,600	227,600	272,500	320,000	368,600	406,000	405,500	361,600	285,000
(†)	942.62	947.92	929.63	962.33	968.93	983.90	997.73	1,009.34	1,010.16	1,008.80	996.11	971.83
(‡)	-36,900	+13,100	-43,100	+81,400	+18,800	+45,500	+45,200	+40,400	+2,900	-4,900	-43,900	-76,600

CAL YR 1970 MAX 412,400 MIN 160,100 AC-FT ‡ +6,200
WTR YR 1971 MAX 411,600 MIN 162,400 AC-FT ‡ +41,900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14186600 Foster Lake at Foster, Oreg.
(Formerly published as Foster Reservoir at Foster)

LOCATION.--Lat 44°25'00", long 122°40'25", in NW¼NE¼ sec.27, T.13 S., R.1 E., Linn County, in Foster Dam on South Santiam River, 0.3 mile above Wiley Creek, 0.5 mile north of Foster, and at mile 37.7.

DRAINAGE AREA.--492 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 56,680 acre-ft Sept. 2 (elevation, 637.67 ft); minimum, 30,040 acre-ft Dec. 20 (elevation, 611.84 ft).

Period of record: Maximum contents, 60,090 acre-ft Sept. 17, 1968 (elevation, 640.45 ft); minimum, 27,910 acre-ft Nov. 28, 1967 (elevation, 609.40 ft).

REMARKS.--Reservoir is formed by a rock-fill embankment with an impervious core and ogee spillway completed in 1966 by Corps of Engineers: controlled storage began in November 1966. Total capacity, 60,780 acre-ft and usable capacity 33,210 acre-ft between elevations 609.0 (proposed lower limit of operation) and 641.0 (top of spillway gates). Reservoir used for reregulation of water released from Green Peter Reservoir, flood control, power development, pollution abatement and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

Capacity table (elevation, in feet, and total contents, in acre-feet)

610	28,430	630	47,860
615	32,870	635	53,510
620	37,570	640	59,530
625	42,550		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55,520	38,700	31,530	33,500	33,320	33,380	36,600	51,880	54,680	55,370	55,880	56,320
2	55,020	38,090	31,550	33,460	33,320	33,840	36,610	52,190	54,680	55,400	55,760	56,400
3	54,470	37,340	31,600	33,540	33,370	34,000	36,610	53,160	54,660	55,420	55,980	56,020
4	53,960	37,070	31,590	33,620	33,330	33,760	36,630	51,390	54,710	55,490	55,790	55,660
5	53,480	36,720	31,620	33,780	33,360	33,860	36,860	51,230	54,340	55,540	55,740	55,870
6	52,980	36,150	31,560	33,330	33,330	34,000	38,170	51,500	54,470	55,480	55,800	55,910
7	52,500	35,400	31,560	33,620	33,360	33,810	38,550	51,590	54,400	55,340	55,740	55,960
8	52,000	34,960	31,500	30,930	33,320	33,980	39,580	51,620	54,300	55,400	55,820	55,880
9	51,390	35,470	31,540	32,760	33,660	33,680	42,170	51,520	53,490	55,490	55,740	56,090
10	50,800	34,440	31,550	31,820	33,490	34,350	44,410	51,520	55,050	55,560	55,640	55,990
11	50,020	34,440	31,600	31,480	33,330	35,940	46,040	51,680	54,980	55,600	55,660	55,900
12	49,340	32,490	31,580	31,540	33,370	37,850	47,140	51,560	55,160	55,600	55,660	55,850
13	48,580	33,900	31,560	31,550	33,360	36,630	48,200	51,620	55,220	55,520	55,520	55,970
14	47,980	36,130	31,580	31,480	33,300	36,540	48,700	53,630	55,100	55,920	55,680	56,040
15	47,430	36,960	31,760	32,310	33,320	36,700	48,600	54,650	55,260	55,860	55,740	55,540
16	47,000	37,810	31,520	32,650	33,300	36,480	48,590	54,660	55,280	55,780	55,780	55,850
17	46,510	36,480	31,630	37,700	33,350	36,660	48,630	54,680	55,220	55,780	55,520	55,690
18	45,970	35,240	31,920	46,800	33,490	36,460	48,560	54,660	55,150	55,800	55,850	55,690
19	45,540	33,320	31,550	52,760	33,320	36,760	48,470	54,660	55,050	55,800	55,490	55,800
20	45,060	33,420	32,080	50,160	33,460	36,660	48,580	54,780	55,180	55,800	55,410	55,800
21	44,580	32,840	32,940	42,800	33,400	36,630	48,420	54,680	55,180	55,820	55,410	55,110
22	44,120	31,850	32,900	36,100	33,520	36,590	49,920	54,710	55,340	56,030	55,560	54,130
23	44,020	31,740	32,800	34,020	33,260	36,600	50,830	54,730	54,940	56,000	55,520	54,200
24	43,980	33,180	32,830	32,390	33,440	36,570	50,920	54,700	55,170	55,980	55,540	54,580
25	42,960	30,940	32,870	33,150	33,420	36,580	49,640	54,620	56,160	55,850	55,580	55,630
26	42,040	31,500	32,870	32,980	33,610	36,630	51,780	54,300	55,610	55,860	55,730	55,520
27	41,300	31,550	32,880	32,840	33,100	36,610	51,980	55,000	55,480	55,760	55,750	55,310
28	40,700	31,570	32,940	33,260	33,030	36,630	51,700	54,760	55,660	55,620	55,750	55,600
29	40,280	31,540	33,350	33,400	------	36,640	51,620	54,800	55,310	55,850	55,800	56,180
30	39,820	31,520	34,560	33,440	------	36,630	51,790	54,670	55,100	55,820	55,840	56,180
31	39,240	------	33,380	33,340	------	36,630	------	54,720	------	55,760	55,420	------
MAX	55,520	38,700	34,560	52,760	33,660	37,850	51,980	55,000	56,160	56,030	55,980	56,400
MIN	39,240	30,940	31,500	30,930	33,030	33,380	36,600	51,230	53,490	55,340	55,410	54,130
(†)	621.71	613.51	615.55	615.51	615.17	619.02	633.51	636.03	636.35	636.91	636.62	637.26
(‡)	-16,820	-7,720	+1,860	-40	-310	+3,600	+15,160	+2,930	+380	-660	-340	+760

CAL YR 1970 MAX 57,320 MIN 30,940 AC-FT ‡ +870
WTR YR 1971 MAX 56,400 MIN 30,930 AC-FT ‡ +120

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

14186700 South Santiam River at Foster, Oreg.

LOCATION.--Lat 44°24'50", long 122°40'25", in NE¼NW¼ sec.27, T.13 S., R.1 E., Linn County, on left bank 600 ft upstream from Wiley Creek, 0.15 mile below Foster Lake, 0.5 mile north of the town of Foster, and at river mile 37.5. Prior to June 16, 1971, at site 300 ft downstream at same datum.

DRAINAGE AREA.--493 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 521.46 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--5 years, 2,590 cfs (71.34 inches per year, 1,876,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,100 cfs Jan. 21 (gage height, 9.38 ft); minimum, 202 cfs Sept. 9, 10.
Period of record: Maximum discharge, 16,600 cfs Jan. 28, 1967 (gage height, 9.52 ft); minimum, 21 cfs Dec. 27, 28, 1966.

REMARKS.--Records good. Flow regulated since 1966 by Green Peter Lake (see station 14186100) and by Foster Lake (see station 14186600). Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,500	2,110	5,600	4,470	5,740	2,790	5,070	3,090	3,070	1,370	588	1,410
2	1,480	2,130	5,480	3,810	5,590	3,450	4,260	3,280	2,600	1,310	588	2,990
3	1,480	1,860	5,840	3,460	5,360	2,660	4,090	3,280	2,450	1,240	579	2,730
4	1,470	1,580	5,940	3,280	5,670	2,780	4,010	4,730	1,840	1,160	573	1,770
5	1,480	1,690	5,940	3,120	5,570	2,000	3,140	4,360	1,760	1,150	572	1,440
6	1,500	2,000	6,600	3,110	5,390	2,170	2,720	4,990	1,460	1,180	569	1,460
7	1,510	1,980	7,600	2,750	4,800	2,540	3,030	5,240	2,210	846	570	1,470
8	1,510	1,980	7,000	3,950	4,650	2,530	2,660	5,550	2,770	729	577	1,520
9	1,460	2,070	6,260	6,740	3,100	1,880	3,470	5,360	2,800	729	573	2,310
10	1,450	2,060	5,900	7,820	6,240	2,090	3,450	5,190	1,000	729	578	2,400
11	1,500	3,630	6,180	6,320	7,150	4,670	3,150	5,220	2,200	733	585	2,510
12	1,510	5,160	5,900	6,600	6,530	6,130	3,080	5,680	2,220	731	592	2,510
13	1,510	4,100	5,630	6,100	6,410	6,450	2,800	5,910	2,450	725	1,390	2,410
14	1,420	3,280	5,600	5,940	5,510	5,020	2,960	3,260	2,570	737	1,340	2,410
15	1,390	3,190	6,000	8,030	5,000	4,410	3,190	1,630	2,070	736	1,340	2,540
16	1,380	4,240	7,400	7,780	4,330	4,100	3,020	2,090	2,010	733	1,320	2,320
17	1,130	5,100	6,280	9,490	3,900	2,440	2,860	1,770	1,920	752	1,320	1,950
18	1,130	5,100	4,000	10,000	2,600	2,090	2,840	1,610	1,950	738	1,320	1,930
19	1,140	5,370	3,900	10,400	2,590	1,930	2,740	1,580	2,020	743	1,320	1,880
20	1,470	5,800	3,250	10,800	2,830	1,970	2,730	1,540	1,810	731	970	1,900
21	1,520	6,120	3,000	12,100	2,800	1,970	2,800	1,530	1,810	743	951	1,900
22	1,670	5,980	1,730	13,600	2,710	3,060	1,830	1,470	2,200	581	951	1,910
23	2,530	6,340	1,680	12,700	1,870	6,610	2,220	1,090	2,490	635	970	1,910
24	2,750	8,380	1,330	12,300	1,990	8,360	2,700	1,300	1,780	585	1,390	2,130
25	2,780	8,380	1,260	11,200	2,360	7,500	2,870	2,890	3,110	585	1,390	1,960
26	2,600	6,890	1,260	11,100	2,180	7,680	3,220	3,640	3,980	593	1,390	2,690
27	2,340	7,250	1,260	11,400	2,600	6,910	3,160	3,470	2,270	596	1,390	2,730
28	2,230	6,400	1,410	10,900	2,160	5,940	3,250	3,700	1,830	597	1,400	2,560
29	2,060	5,410	2,660	7,680	------	5,740	3,140	3,140	1,740	596	1,400	2,850
30	2,090	5,290	3,190	5,540	------	6,670	2,830	3,050	1,110	621	1,400	2,880
31	2,160	------	6,870	5,820	------	6,200	------	2,870	------	607	1,410	------
TOTAL	53,150	130,870	141,950	238,310	117,630	130,740	93,290	103,510	65,500	24,541	31,306	65,380
MEAN	1,715	4,362	4,579	7,687	4,201	4,217	3,110	3,339	2,183	792	1,010	2,179
MAX	2,780	8,380	7,600	13,600	7,150	8,360	5,070	5,910	3,980	1,370	1,410	2,990
MIN	1,130	1,580	1,260	2,750	1,870	1,880	1,830	1,090	1,000	581	569	1,410
AC-FT	105,400	259,600	281,600	472,700	233,300	259,300	185,000	205,300	129,900	48,680	62,100	129,700

CAL YR 1970 TOTAL 956,650 MEAN 2,621 MAX 12,800 MIN 578 AC-FT 1,898,000
WTR YR 1971 TOTAL 1,196,177 MEAN 3,277 MAX 13,600 MIN 569 AC-FT 2,373,000

14187000 Wiley Creek near Foster, Oreg.

LOCATION.--Lat 44°22'20", long 122°37'20", in NE¼NE¼ sec.12, T.14 S., R.1 E., Linn County, on right bank 0.5 mile downstream from Little Wiley Creek, 3.5 miles southeast of Foster, and at mile 4.4.

DRAINAGE AREA.--51.8 sq mi.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 716.08 ft above mean sea level (Corps of Engineers bench mark). Prior to Apr. 6, 1965, water-stage recorder at present site at datum 2.00 ft higher. Apr. 6 to Aug. 17, 1965, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--24 years, 221 cfs (57.94 inches per year, 160,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,690 cfs Jan. 18 (gage height, 6.79 ft); minimum, 6.8 cfs Oct. 15-17.

Period of record: Maximum discharge, 8,370 cfs Dec. 22, 1964 (gage height, 10.00 ft, present datum), from slope-area measurement of peak flow; maximum gage height, 11.80 ft, present datum, Dec. 21, 1964 (backwater from debris); minimum discharge, 5.6 cfs Nov. 26, 1952.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS.--WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	37	293	568	290	203	421	253	220	81	20	113
2	8.5	34	259	380	259	208	356	279	190	73	18	142
3	8.0	32	416	293	226	348	312	308	170	66	17	85
4	8.0	34	340	241	293	304	286	304	151	63	17	52
5	8.5	48	448	208	272	241	300	256	139	59	17	39
6	9.0	65	616	185	235	232	324	220	129	55	17	39
7	9.0	56	840	165	205	344	297	235	125	52	16	32
8	8.2	99	586	480	188	356	324	253	113	48	15	28
9	8.5	193	403	987	193	300	784	217	103	56	14	25
10	11	160	320	1,210	485	658	707	200	99	54	13	23
11	9.7	368	328	784	421	1,030	550	205	91	48	13	26
12	8.5	526	269	505	368	1,210	457	235	85	43	12	22
13	7.9	283	232	380	340	777	407	238	95	41	12	20
14	7.6	190	247	316	348	580	368	193	95	38	13	20
15	7.1	153	443	1,680	500	457	336	188	81	35	12	18
16	6.8	304	798	2,020	430	364	312	220	74	34	11	17
17	6.8	214	466	2,530	332	304	320	180	70	32	11	15
18	13	183	320	2,860	308	265	320	158	88	30	11	15
19	20	165	250	2,710	297	247	283	158	82	29	11	14
20	24	180	220	1,590	265	241	290	153	71	28	11	14
21	35	193	190	868	241	241	279	143	65	26	11	14
22	49	175	163	592	247	480	269	141	62	24	24	13
23	168	269	143	598	247	882	276	147	63	24	16	13
24	198	1,230	129	556	348	1,000	286	149	60	23	13	14
25	151	966	119	688	372	777	293	149	250	22	12	38
26	111	598	109	580	308	812	290	235	173	21	11	58
27	73	749	113	439	269	652	283	193	135	21	11	36
28	58	470	229	364	235	580	256	173	115	20	12	92
29	51	332	364	316	------	510	244	153	97	20	11	162
30	45	320	728	293	------	616	238	147	88	20	11	101
31	41	------	1,160	308	------	526	------	151	------	20	29	------
TOTAL	1,178.6	8,626	11,541	25,694	8,522	15,745	10,468	6,234	3,379	1,206	442	1,300
MEAN	38.0	288	372	829	304	508	349	201	113	38.9	14.3	43.3
MAX	198	1,230	1,160	2,860	500	1,210	784	308	250	81	29	162
MIN	6.8	32	109	165	188	203	238	141	60	20	11	13
CFSM	.73	5.56	7.18	16.0	5.87	9.81	6.74	3.88	2.18	.75	.28	.84
IN.	.85	6.19	8.29	18.45	6.12	11.31	7.52	4.48	2.43	.87	.32	.93
AC-FT	2,340	17,110	22,890	50,960	16,900	31,230	20,760	12,370	6,700	2,390	877	2,580

CAL YR 1970 TOTAL 70,130.0 MEAN 192 MAX 1,800 MIN 6.8 CFSM 3.71 IN 50.36 AC-FT 139,100
WTR YR 1971 TOTAL 94,335.6 MEAN 258 MAX 2,860 MIN 6.8 CFSM 4.98 IN 67.75 AC-FT 187,100

PEAK DISCHARGE (BASE, 2,300 CFS).--Jan. 15 (1700) 2,490 cfs (5.70 ft); Jan. 18 (0300) 3,690 cfs (6.79 ft).

14187500 South Santiam River at Waterloo, Oreg.

LOCATION.--Lat 44°29'55", long 122°49'20", in SW¼NW¼ sec.28, T.12 S., R.1 W., Linn County, on left bank 0.1 mile downstream from highway bridge at Waterloo, 2.1 miles upstream from Hamilton Creek, and at mile 23.3.

DRAINAGE AREA.--640 sq mi.

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to December 1911 (gage heights only January to December 1911), July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as South Fork of Santiam River at Waterloo 1905-7, 1910-11.

GAGE.--Water-stage recorder. Datum of gage is 370.39 ft above mean sea level. Prior to Dec. 31, 1911, nonrecording gage at site 0.5 mile downstream at datum about 5.0 ft lower. July 1, 1923, to Nov. 12, 1934, nonrecording gage, at present site and datum.

AVERAGE DISCHARGE.--49 years (1905-6, 1923-71), 2,905 cfs (2,105,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,100 cfs Jan. 22 (gage height, 9.03 ft); minimum, 408 cfs July 22.
Period of record: Maximum discharge, 95,200 cfs Dec. 22, 1964 (gage height, 24.50 ft); minimum, 61 cfs Oct. 12, 1966.

REMARKS.--Records excellent. Flow regulated since October 1966 by Green Peter Lake (see station 14186100) and since December 1966 by Foster Lake (see station 14186600). No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1248: 1907, 1924-30, 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,440	2,110	6,420	5,800	6,370	3,190	5,800	3,300	3,230	1,450	531	1,400
2	1,420	2,110	6,300	4,730	6,190	3,980	4,780	3,520	2,820	1,380	523	2,800
3	1,440	1,930	6,740	4,160	5,910	3,630	4,520	3,540	2,540	1,300	523	2,600
4	1,420	1,570	6,870	3,920	6,450	3,760	4,380	4,800	2,050	1,200	507	1,600
5	1,420	1,680	6,710	3,630	6,330	2,940	3,630	4,560	1,870	1,170	507	1,400
6	1,450	2,000	7,600	3,550	6,060	2,910	3,180	5,040	1,600	1,200	515	1,400
7	1,450	2,020	8,600	3,210	5,380	3,320	3,370	5,330	2,050	940	515	1,500
8	1,450	2,000	7,990	4,620	5,470	3,390	3,030	5,680	2,770	731	499	1,500
9	1,440	2,350	7,050	8,020	3,600	2,850	4,540	5,530	2,890	731	499	2,300
10	1,400	2,090	6,560	9,500	6,280	2,940	4,600	5,310	1,070	750	507	2,300
11	1,450	3,690	6,890	7,650	7,990	5,810	4,260	5,260	2,080	731	507	2,400
12	1,450	5,820	6,520	7,730	7,140	7,730	3,980	5,800	2,180	731	507	2,400
13	1,470	4,620	6,200	7,080	7,000	7,840	3,570	6,080	2,400	721	1,110	2,300
14	1,400	3,570	6,180	6,740	6,360	6,450	3,540	3,940	2,560	712	1,260	2,400
15	1,340	3,390	6,740	9,810	5,750	5,410	3,690	1,840	2,170	712	1,270	2,420
16	1,330	4,380	8,860	10,200	5,220	4,990	3,550	2,230	1,960	702	1,270	2,230
17	1,140	5,460	7,390	11,900	4,620	3,430	3,450	2,030	1,940	712	1,280	1,940
18	1,090	5,460	4,930	12,500	3,480	2,860	3,390	1,760	1,960	693	1,290	1,850
19	1,120	5,700	4,580	13,100	3,350	2,580	3,230	1,730	2,020	683	1,280	1,840
20	1,400	6,200	3,880	12,600	3,440	2,570	3,180	1,660	1,840	683	995	1,820
21	1,500	6,610	3,550	13,300	3,410	2,550	3,340	1,660	1,720	683	920	1,820
22	1,620	6,540	2,380	14,800	3,410	3,470	2,530	1,590	2,110	539	962	1,820
23	2,510	6,870	2,140	14,100	2,670	7,300	2,400	1,300	2,450	609	940	1,820
24	2,940	9,750	1,760	13,300	2,660	9,390	3,270	1,380	1,910	531	1,290	2,020
25	2,960	10,100	1,620	13,000	3,300	8,490	3,250	2,640	2,910	531	1,360	1,870
26	2,820	7,910	1,600	12,000	2,920	8,690	3,590	3,720	4,300	523	1,360	2,270
27	2,400	8,690	1,610	12,400	3,430	7,860	3,500	3,460	2,510	523	1,360	2,690
28	2,270	7,410	1,870	11,600	2,830	6,840	3,570	3,860	1,940	523	1,360	2,610
29	2,080	6,250	3,590	9,000	------	6,520	3,480	3,200	1,900	539	1,360	2,770
30	2,080	5,960	4,240	6,220	------	7,280	3,110	3,150	1,150	531	1,360	2,910
31	2,150	------	8,630	6,440	------	6,920	------	2,920	------	531	1,380	------
TOTAL	52,850	144,240	166,000	276,610	137,020	157,890	109,710	107,820	66,900	23,995	29,547	63,000
MEAN	1,705	4,808	5,355	8,923	4,894	5,093	3,657	3,478	2,230	774	953	2,100
MAX	2,960	10,100	8,860	14,800	7,990	9,390	5,800	6,080	4,300	1,450	1,380	2,910
MIN	1,090	1,570	1,600	3,210	2,660	2,550	2,400	1,300	1,070	523	499	1,400
AC-FT	104,800	286,100	329,300	548,700	271,800	313,200	217,600	213,900	132,700	47,590	58,610	125,000

CAL YR 1970 TOTAL 1,094,526 MEAN 2,999 MAX 14,100 MIN 731 AC-FT 2,171,000
WTR YR 1971 TOTAL 1,335,582 MEAN 3,659 MAX 14,800 MIN 499 AC-FT 2,649,000

14188800 Thomas Creek near Scio, Oreg.

LOCATION.--Lat 44°42'42", long 122°45'55", in SE¼SE¼ sec.11, T.10 S., R.1 W., Linn County, on left bank 0.3 mile upstream from bridge on State Highway 226, 1.6 miles upstream from Mill Creek, 4.2 miles east of Scio, and at mile 14.6.

DRAINAGE AREA.--109 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 380.84 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 494 cfs (61.55 inches per year, 357,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,670 cfs Jan. 19 (gage height, 11.89 ft); minimum, 20 cfs Oct. 16, 17.

Period of record: Maximum discharge, 27,400 cfs Dec. 22, 1964 (gage height, 18.44 ft), from rating curve extended above 7,200 cfs on basis of slope-area measurement of peak flow; minimum, 7.8 cfs Aug. 20, 1967.

REVISIONS.--Figures of maximum discharge for the water years 1965, 1966, and 1969 have been revised to 27,400 cfs Dec. 22, 1964 (gage height, 18.44 ft), 8,900 cfs Jan. 6, 1966 (gage height, 12.73 ft), 8,740 cfs Dec. 4, 1968 (gage height, 12.63 ft), superseding figures published in WRD Oreg. 1965, 1966, and 1969.

REMARKS.--Records good. No regulation. Several small diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--The figures of peak discharge for water years 1965, 1966, and 1969 have been revised as shown in the following table. They supersede figures published in WRD Oreg. 1965, 1966, and 1969.

REVISED PEAK DISCHARGE.--1965: Dec. 22 (1130) 27,400 cfs (18.44 ft); Jan. 28 (0200) 11,200 cfs (14.06 ft).
1966: Jan. 6 (0100) 8,900 cfs (12.73 ft).
1969: Dec. 4 (2000) 8,740 cfs (12.63 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	93	906	1,590	717	518	863	514	390	230	55	522
2	24	85	834	1,070	630	600	743	595	335	208	49	828
3	23	78	1,350	810	533	1,170	659	670	299	188	44	438
4	22	75	1,050	650	889	997	615	660	284	173	43	266
5	25	95	1,330	542	696	756	654	522	272	162	44	200
6	32	210	1,700	475	567	715	710	442	260	151	46	175
7	30	198	2,150	431	496	876	624	502	263	139	43	141
8	26	366	1,470	1,050	448	882	865	550	228	132	42	121
9	26	590	1,020	2,370	450	762	2,490	470	213	143	39	106
10	33	462	882	2,710	1,270	1,570	2,010	430	215	141	36	96
11	32	1,050	966	1,760	951	2,190	1,660	450	200	130	34	103
12	27	1,110	750	1,220	794	2,520	1,300	514	190	119	33	90
13	26	655	645	924	749	2,080	1,070	565	220	108	33	81
14	24	454	675	806	896	1,580	924	442	254	101	34	74
15	22	390	918	2,570	1,500	1,270	828	426	200	96	33	70
16	21	695	1,680	3,420	1,200	984	762	510	180	91	32	65
17	21	518	1,210	3,530	877	822	745	398	164	87	29	58
18	47	458	864	3,400	824	700	675	344	254	82	28	55
19	66	474	690	5,500	763	635	600	344	257	79	28	54
20	88	474	625	3,220	650	585	630	362	205	74	27	51
21	126	434	534	1,930	578	542	590	329	183	67	31	49
22	180	370	466	1,440	608	835	542	323	169	63	105	49
23	514	630	410	1,510	585	1,380	538	344	166	62	65	47
24	478	3,320	350	1,450	985	1,520	514	354	157	62	45	47
25	341	2,840	329	1,950	1,010	1,160	510	354	1,050	61	38	82
26	260	1,630	308	1,540	820	1,290	534	555	620	58	33	145
27	190	1,860	320	1,160	712	1,070	550	454	442	54	33	98
28	153	1,240	668	930	603	972	510	402	358	54	34	215
29	132	870	1,390	778	------	948	478	350	302	51	34	398
30	115	846	2,480	729	------	1,220	470	317	260	51	33	285
31	105	------	3,090	771	------	1,070	------	287	------	53	114	------
TOTAL	3,235	22,570	32,060	52,236	21,801	34,219	24,663	13,779	8,590	3,270	1,317	5,009
MEAN	104	752	1,034	1,685	779	1,104	822	444	286	105	42.5	167
MAX	514	3,320	3,090	5,500	1,500	2,520	2,490	670	1,050	230	114	828
MIN	21	75	308	431	448	518	470	287	157	51	27	47
CFSM	.95	6.90	9.49	15.5	7.15	10.1	7.54	4.07	2.62	.96	.39	1.53
IN.	1.10	7.70	10.94	17.83	7.44	11.68	8.42	4.70	2.93	1.12	.45	1.71
AC-FT	6,420	44,770	63,590	103,600	43,240	67,870	48,920	27,330	17,040	6,490	2,610	9,940

CAL YR 1970 TOTAL 190,602 MEAN 522 MAX 5,050 MIN 10 CFSM 4.79 IN 65.05 AC-FT 378,100
WTR YR 1971 TOTAL 222,749 MEAN 610 MAX 5,500 MIN 21 CFSM 5.60 IN 76.02 AC-FT 441,800

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	2300	9.37	4,870	1-16	2200	8.78	4,300
12-30	2130	10.00	5,500	1-19	1200	11.89	7,670

14189000 Santiam River at Jefferson, Oreg.

LOCATION.--Lat 44°42'55", long 123°00'40", in SE¼ sec.11, T.10 S., R.3 W., Marion County, on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.1 miles downstream from confluence of North and South Santiam Rivers, and at mile 9.62.

DRAINAGE AREA.--1,790 sq mi, approximately.

PERIOD OF RECORD.--October 1905 to June 1906 (gage heights and discharge measurements only), October 1907 to September 1916, October 1939 to current year. Gage-height records collected at same site since 1907 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 199.63 ft above mean sea level. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft downstream at datum 3.00 ft higher.

AVERAGE DISCHARGE.--41 years (1907-16, 1939-71) 7,798 cfs (5,650,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 56,400 cfs Jan. 19 or 22 (gage height, 16.2 ft, from floodmark); minimum, 1,370 cfs July 27.

Period of record: Maximum discharge, 197,000 cfs Dec. 22, 1964 (gage height, 24.22 ft); minimum observed, 260 cfs Aug. 15-22, Aug. 24 to Sept. 2, 1940.

Flood stage of 25.0 ft was reached in December 1861, and 23.4 ft in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached 19.5 ft at gage on railroad bridge 350 ft downstream, corresponding gage height at present site and datum, 24.4 ft, from curve of relation (discharge, 202,000 cfs).

REMARKS.--Records excellent except those for period of no gage-height record, which are good. Flow regulated since 1953 by Detroit Lake (see station 14180500), since 1966 by Green Peter Lake (see station 14186100), and by Foster Lake (see station 14186600). Salem Canal diverts from North Santiam River at Stayton for irrigation and power; most of this water reaches Willamette River by way of Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near West Stayton; some return flow reaches North Santiam River above station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 904: Drainage area. WSP 1094: 1908, 1910, 1912, 1943. WSP 1248: 1911, 1915-16(M). WSP 1935: 1909.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,940	5,030	15,900	16,800	15,400	7,890	14,800	8,600	8,990	4,710	1,880	4,080
2	2,980	5,140	15,800	12,600	14,700	9,560	12,100	9,320	8,410	4,190	1,720	7,350
3	3,020	4,780	16,900	10,500	13,900	10,800	10,200	10,200	7,110	3,970	1,750	8,260
4	3,120	3,820	17,500	9,480	15,700	10,300	9,920	11,300	6,740	3,480	1,730	5,860
5	3,700	4,050	16,200	8,600	15,400	8,880	9,550	12,000	6,320	3,400	1,710	4,110
6	3,520	4,710	19,500	7,600	14,100	7,850	9,570	11,600	6,100	3,270	1,540	3,750
7	3,120	5,050	22,600	7,000	12,900	8,550	9,100	11,900	6,040	2,680	1,620	3,870
8	3,200	5,520	21,100	11,000	12,700	9,030	8,990	12,900	7,810	2,060	1,620	4,330
9	3,220	7,760	17,500	22,500	8,860	8,050	17,500	12,600	8,020	2,130	1,660	4,440
10	3,080	7,570	15,900	24,500	14,100	8,440	18,800	11,800	6,880	2,330	1,680	3,950
11	3,110	9,500	16,400	18,000	18,400	15,300	15,800	11,700	6,910	2,270	1,590	4,160
12	3,020	15,200	15,300	19,500	14,900	21,100	13,900	12,900	7,170	2,120	1,580	4,450
13	3,020	12,000	14,500	18,000	14,500	20,500	11,600	15,400	7,410	2,070	1,870	4,920
14	3,010	9,150	14,200	17,000	13,800	16,900	10,600	13,700	7,930	1,980	2,220	4,710
15	2,850	8,170	15,800	27,000	16,000	13,700	10,600	9,440	7,650	1,930	2,230	4,030
16	2,900	9,230	21,700	28,000	14,900	12,000	10,200	9,690	6,380	1,880	2,270	3,970
17	2,770	10,900	18,700	32,000	13,200	10,000	9,860	8,710	5,680	1,990	2,280	3,500
18	2,730	10,400	13,100	34,000	11,100	8,150	9,410	7,390	5,350	2,290	2,230	2,980
19	2,860	11,400	11,000	35,000	10,200	7,060	8,900	7,600	5,680	2,320	2,270	3,420
20	3,050	13,300	10,000	34,000	9,450	6,740	8,520	7,530	5,560	2,160	2,200	3,370
21	3,550	14,200	9,530	38,000	9,000	6,430	8,360	7,420	5,220	1,880	2,270	2,870
22	3,950	13,600	7,380	41,000	9,160	7,690	7,580	7,230	5,580	1,910	2,460	3,380
23	6,290	14,100	5,880	39,000	8,140	14,400	6,660	5,750	6,190	1,890	2,770	3,380
24	8,840	26,400	5,360	37,000	7,450	19,900	7,980	4,460	5,840	1,810	3,390	3,160
25	7,780	29,500	5,030	35,000	9,760	19,300	7,680	5,560	8,280	1,710	3,300	3,750
26	7,230	21,400	4,800	34,000	8,400	20,300	8,530	8,940	10,900	1,670	2,780	5,160
27	6,310	21,600	4,800	35,000	8,990	19,300	9,350	11,200	8,590	1,620	2,800	4,870
28	5,800	18,700	5,660	31,000	8,260	16,900	9,270	11,100	7,520	1,790	3,060	5,500
29	5,560	15,800	11,200	19,500	------	15,800	8,910	10,600	6,400	1,850	3,670	8,000
30	5,420	14,500	14,000	19,000	------	16,900	8,480	10,200	5,100	1,700	3,460	8,000
31	5,030	------	26,300	15,000	------	17,100	------	8,440	------	1,680	3,060	------
TOTAL	126,980	352,480	429,540	736,580	343,370	394,820	312,720	307,180	207,760	72,740	70,670	137,580
MEAN	4,096	11,750	13,860	23,760	12,260	12,740	10,420	9,909	6,925	2,346	2,280	4,586
MAX	8,840	29,500	26,300	41,000	18,400	21,100	18,800	15,400	10,900	4,710	3,670	8,260
MIN	2,730	3,820	4,800	7,000	7,450	6,430	6,660	4,460	5,100	1,620	1,540	2,870
AC-FT	251,900	699,100	852,000	1,461M	681,100	783,100	620,300	609,300	412,100	144,300	140,200	272,900

CAL YR 1970 TOTAL 2,893,520 MEAN 7,927 MAX 45,700 MIN 1,250 AC-FT 5,739,000
WTR YR 1971 TOTAL 3,492,420 MEAN 9,568 MAX 41,000 MIN 1,540 AC-FT 6,927,000

NOTE.--No gage-height record Jan. 5-30.

14189500 Luckiamute River near Hoskins, Oreg.

LOCATION.--Lat 44°43'10", long 123°30'10", in NE¼ sec.11, T.10 S., R.7 W., Benton County, on right bank 0.2 mile downstream from Benton County line, 3.5 miles northwest of Hoskins, and at mile 43.2.

DRAINAGE AREA.--34.3 sq mi.

PERIOD OF RECORD.--May 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 378.7 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--37 years, 208 cfs (82.35 inches per year, 150,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs Jan. 16 (gage height, 8.11 ft, from high-water mark in well); minimum, 5.9 cfs Oct. 15-17.

period of record: Maximum discharge, 5,560 cfs Dec. 14, 1946, Feb. 17, 1949; maximum gage height, 13.22 ft Dec. 14, 1946; minimum discharge, 4.0 cfs Sept. 5-8, 1962.

Flood of Dec. 6, 1933, reached a stage of about 13.8 ft, from information by local residents.

REMARKS.--Records good. Logponds upstream cause diurnal fluctuation at times. Minor diversion above station by pumping for irrigation.

REVISIONS (WATER YEARS).--WSP 834: 1936(M). WSP 1638: 1943(P), 1946(P). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	25	396	1,000	320	252	424	103	50	47	20	85
2	6.5	23	378	750	280	281	372	99	48	43	20	137
3	6.5	22	579	550	320	452	319	93	47	41	19	61
4	6.0	24	530	400	400	452	277	90	45	39	19	40
5	6.0	26	690	320	500	372	246	86	43	37	18	34
6	6.5	52	1,010	280	400	347	225	81	42	37	18	31
7	7.0	44	1,180	260	320	368	204	78	43	35	18	27
8	7.7	65	790	260	280	379	261	75	41	34	18	24
9	7.6	74	533	340	255	365	718	73	40	35	17	22
10	7.9	71	477	550	480	1,050	746	70	43	35	17	22
11	7.5	243	463	480	407	1,400	718	67	40	35	16	22
12	7.1	255	387	420	347	1,240	602	66	39	32	16	20
13	6.9	161	339	360	298	870	480	66	45	30	16	19
14	6.5	116	405	460	344	730	393	63	51	29	16	18
15	6.0	168	603	1,100	421	618	330	69	41	28	16	18
16	5.9	453	1,030	2,400	414	508	291	146	37	27	16	17
17	6.4	300	814	1,900	361	4.1	284	95	36	26	15	16
18	21	237	544	1,500	358	358	240	83	46	25	15	16
19	20	185	408	1,400	323	309	216	76	45	24	15	16
20	40	159	363	1,300	288	274	201	73	41	23	16	16
21	66	137	312	1,000	261	246	178	69	39	22	18	16
22	81	132	264	850	267	340	170	64	35	22	20	16
23	193	399	231	750	246	484	168	61	40	22	18	16
24	126	1,230	208	950	393	540	153	58	41	22	16	18
25	96	750	190	1,500	442	470	144	61	148	22	15	23
26	78	622	175	1,200	396	536	133	67	83	21	14	28
27	56	786	193	1,000	344	582	129	60	67	21	14	21
28	44	589	345	700	295	590	120	55	60	21	15	33
29	38	423	572	550	------	558	114	53	54	20	14	60
30	33	405	1,510	440	------	562	108	51	50	21	14	41
31	29	------	1,300	360	------	491	------	50	------	21	24	------
TOTAL	1,036.0	8,176	17,219	25,330	9,760	16,445	8,964	2,301	1,480	897	523	933
MEAN	33.4	273	555	817	349	530	299	74.2	49.3	28.9	16.9	31.1
MAX	193	1,230	1,510	2,400	500	1,400	746	146	148	47	24	137
MIN	5.9	22	175	260	246	246	108	50	35	20	14	16
CFSM	.97	7.96	16.2	23.8	10.2	15.5	8.72	2.16	1.44	.84	.49	.91
IN.	1.12	8.87	18.67	27.47	10.59	17.84	9.72	2.50	1.61	.97	.57	1.01
AC-FT	2,050	16,220	34,150	50,240	19,360	32,620	17,780	4,560	2,940	1,780	1,040	1,850

CAL YR 1970 TOTAL 78,578.1 MEAN 215 MAX 2,010 MIN 5.9 CFSM 6.27 IN 85.22 AC-FT 155,900
WTR YR 1971 TOTAL 93,064.0 MEAN 255 MAX 2,400 MIN 5.9 CFSM 7.43 IN 100.93 AC-FT 184,600

PEAK DISCHARGE (BASE, 2,000 CFS).--Dec. 30 (time and discharge unknown); Jan. 16 (time unknown) 2,700 cfs (8.11 ft).

NOTE.--No gage-height record Dec. 31 to Feb. 8.

14190100 Little Luckiamute River at Falls City, Oreg.

LOCATION.--Lat 44°52'15", long 123°27'40", in SE¼ sec.18, T.8 S., R.6 W., Polk County, on right bank 0.8 mile above Dutch Creek, 0.6 mile west of Falls City, and at mile 13.3.

DRAINAGE AREA.--22.7 sq mi.

PERIOD OF RECORD.--August 1965 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 475.57 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE DISCHARGE.--6 years, 152 cfs (90.93 inches per year, 110,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,710 cfs Jan. 16 (gage height, 5.22 ft); minimum, 8.9 cfs Oct. 14-17.
Period of record: Maximum discharge, 2,090 cfs Mar. 9, 1966 (gage height, 5.61 ft); minimum, 3.5 cfs July 16, 1966.
Flood of Dec. 22, 1964, reached a stage of 7.70 ft, from floodmark (discharge, 3,570 cfs), from rating curve extended above 860 cfs.

REMARKS.--Records fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	27	217	477	272	165	339	114	52	48	20	74
2	9.9	25	197	361	240	189	302	121	50	45	19	145
3	9.9	24	269	285	216	240	261	130	49	42	19	64
4	9.9	26	233	236	344	225	233	131	46	42	19	45
5	10	28	501	203	276	195	219	119	45	39	19	39
6	11	48	838	178	231	186	216	106	43	39	18	35
7	11	45	949	160	204	204	204	109	43	36	18	29
8	9.9	80	547	171	183	201	295	111	41	35	18	27
9	9.9	80	393	319	204	198	624	100	40	38	17	26
10	9.9	69	396	366	465	680	505	92	42	39	17	24
11	9.9	252	402	286	336	884	429	88	40	39	16	25
12	9.9	235	306	233	272	806	362	90	38	35	16	23
13	9.4	136	257	200	240	557	309	92	45	33	16	22
14	9.4	97	301	183	320	473	271	84	51	32	16	20
15	9.4	176	464	802	410	395	246	96	42	30	16	19
16	8.9	416	681	1,270	368	331	230	200	40	29	16	18
17	9.4	230	494	1,130	300	279	227	134	38	28	15	18
18	18	207	366	913	284	240	202	112	49	27	15	17
19	17	156	288	1,080	248	215	182	96	52	26	15	17
20	30	136	251	709	216	194	172	86	47	25	17	16
21	57	114	214	528	198	179	154	78	44	24	19	15
22	93	102	185	479	207	257	146	73	41	24	19	15
23	264	438	164	517	192	478	144	70	44	24	17	15
24	165	916	148	609	320	488	133	68	47	23	15	16
25	98	548	137	1,150	288	364	130	70	159	23	15	21
26	71	413	128	878	240	463	137	74	89	22	15	24
27	56	452	134	590	213	419	141	66	71	21	15	19
28	45	346	230	465	186	465	133	61	62	21	15	32
29	39	259	313	380	------	529	124	58	56	21	15	50
30	33	236	1,020	336	------	514	117	56	51	21	15	38
31	30	------	808	304	------	404	------	54	------	21	22	------
TOTAL	1,183.7	6,317	11,831	15,798	7,473	11,417	7,187	2,939	1,557	952	524	948
MEAN	38.2	211	382	510	267	368	240	94.8	51.9	30.7	16.9	31.6
MAX	264	916	1,020	1,270	465	884	624	200	159	48	22	145
MIN	8.9	24	128	160	183	165	117	54	38	21	15	15
CFSM	1.68	9.30	16.8	22.5	11.8	16.2	10.6	4.18	2.29	1.35	.74	1.39
IN.	1.94	10.35	19.39	25.89	12.25	18.71	11.78	4.82	2.55	1.56	.86	1.55
AC-FT	2,350	12,530	23,470	31,340	14,820	22,650	14,260	5,830	3,090	1,890	1,040	1,880

CAL YR 1970 TOTAL 56,056.7 MEAN 154 MAX 1,200 MIN 8.9 CFSM 6.78 IN 91.86 AC-FT 111,200
WTR YR 1971 TOTAL 68,126.7 MEAN 187 MAX 1,270 MIN 8.9 CFSM 8.24 IN 111.64 AC-FT 135,100

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0130	4.62	1,230	1-16	1930	5.22	1,710
12- 7	0330	4.60	1,220	3-10	1630	4.59	1,210
12-30	1700	5.09	1,600				

14190500 Luckiamute River near Suver, Oreg.

LOCATION.--Lat 44°47'00", long 123°14'00", in SW¼SW¼ sec.18, T.9 S., R.4 W., Polk County, on right bank 10 ft upstream from highway bridge at Helmick State Park, 3.0 miles northwest of Suver, 4.7 miles downstream from Little Luckiamute River, and at mile 13.5.

DRAINAGE AREA.--240 sq mi.

PERIOD OF RECORD.--August 1905 to October 1911, July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 171.92 ft above mean sea level. Aug. 18, 1905, to Oct. 31, 1911, nonrecording gage at present site at different datum, Aug. 20 to Oct. 15, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--37 years, 929 cfs (52.57 inches per year, 673,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,800 cfs Jan. 17 (gage height, 29.94 ft); minimum, 20 cfs Aug. 28.
Period of record: Maximum discharge, 32,900 cfs Dec. 22, 1964 (gage height, 34.52 ft); minimum, 0.65 cfs Aug. 13, 1966.

REMARKS.--Records good. Some diurnal fluctuation during periods of low flow caused by millpond above station. A few small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1044: Drainage area. WSP 1094: 1945-46. WSP 1248: 1905-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	106	1,850	6,790	1,650	1,520	1,900	542	244	171	43	82
2	29	97	1,910	4,340	1,460	1,400	1,640	523	240	161	45	357
3	29	89	2,110	2,670	1,300	2,190	1,460	512	228	146	33	331
4	27	86	3,060	1,870	1,730	2,950	1,290	500	218	138	31	176
5	27	95	2,390	1,520	2,300	2,620	1,180	481	208	132	31	126
6	29	120	3,110	1,300	1,760	2,070	1,080	458	198	123	31	112
7	31	177	4,070	1,160	1,520	2,060	1,020	437	191	118	30	98
8	32	182	4,450	1,070	1,360	2,130	992	423	189	109	34	86
9	32	249	3,200	1,230	1,240	1,950	2,100	407	180	104	36	78
10	31	258	2,130	1,640	1,810	2,200	3,830	387	161	108	26	74
11	31	343	2,250	2,400	1,970	4,720	3,560	369	182	116	23	69
12	32	834	1,890	2,230	1,650	6,570	3,420	354	168	117	22	68
13	30	621	1,580	1,790	1,470	6,130	2,630	355	169	99	22	65
14	29	398	1,480	1,550	1,380	4,570	2,000	343	196	87	22	60
15	28	298	2,280	3,090	2,050	3,870	1,650	325	187	80	26	56
16	27	799	3,840	7,420	2,180	2,990	1,430	521	163	74	29	51
17	27	1,060	4,980	12,100	1,890	2,290	1,360	556	154	68	24	47
18	29	736	3,930	8,750	1,690	1,850	1,230	445	158	68	23	42
19	47	612	2,540	7,330	1,770	1,580	1,090	392	188	70	23	40
20	70	492	1,900	7,100	1,530	1,390	1,000	360	174	58	25	40
21	112	429	1,780	5,470	1,390	1,250	927	343	162	52	28	39
22	214	366	1,470	4,040	1,320	1,270	861	319	147	47	38	39
23	448	515	1,260	3,370	1,270	1,670	833	301	138	42	44	37
24	600	2,440	1,130	3,150	1,330	2,230	790	287	137	43	37	38
25	407	3,820	1,020	4,490	1,900	1,950	727	282	308	49	28	41
26	332	2,740	932	7,400	1,920	2,200	689	317	405	50	23	55
27	251	2,620	920	6,400	2,010	2,550	659	328	278	39	22	71
28	189	2,700	1,140	4,400	1,750	2,580	633	280	237	40	21	61
29	155	1,870	2,480	3,080	------	2,570	598	258	212	38	27	100
30	133	1,480	3,490	2,290	------	2,440	566	246	187	37	27	155
31	118	------	8,000	1,900	------	2,280	------	247	------	37	28	------
TOTAL	3,605	26,632	78,572	123,340	46,600	80,040	43,145	11,898	6,027	2,621	902	2,694
MEAN	116	888	2,535	3,979	1,664	2,582	1,438	384	201	84.5	29.1	89.8
MAX	600	3,820	8,000	12,100	2,300	6,570	3,830	556	405	171	45	357
MIN	27	86	920	1,070	1,240	1,250	566	246	137	37	21	37
CFSM	.48	3.70	10.6	16.6	6.93	10.8	5.99	1.60	.84	.35	.12	.37
IN.	.56	4.13	12.18	19.12	7.22	12.41	6.69	1.84	.93	.41	.14	.42
AC-FT	7,150	52,820	155,800	244,600	92,430	158,800	85,580	23,600	11,950	5,200	1,790	5,340

CAL YR 1970 TOTAL 353,457 MEAN 968 MAX 9,240 MIN 13 CFSM 4.03 IN 54.79 AC-FT 701,100
WTR YR 1971 TOTAL 426,076 MEAN 1,167 MAX 12,100 MIN 21 CFSM 4.86 IN 66.04 AC-FT 845,100

PEAK DISCHARGE (BASE, 6,600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	1400	28.28	9,220	1-26	1100	27.45	7,780
1-17	0930	29.94	13,800	3-12	1630	26.95	7,040

14190700 Rickreall Creek near Dallas, Oreg.

LOCATION.--Lat 44°54'50", long 123°23'20", in SE¼SW¼ sec.35, T.7 S., R.6 W., Polk County, on left bank 1.8 miles downstream from Canyon Creek, 3.5 miles west of Dallas, 5.1 miles downstream from Dallas Dam, and at mile 19.1.

RAINAGE AREA.--27.4 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water stage recorder and concrete control. Altitude of gage is 520 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 146 cfs (72.36 inches per year, 105,800 acre-ft per year) adjusted for diversion and storage.

EXTREMES.--Current year: Maximum discharge, 3,070 cfs Jan. 16 (gage height, 6.24 ft); no flow part of each day Aug. 19, 20. Period of record: Maximum discharge, 7,160 cfs Dec. 22, 1964 (gage height, 8.78 ft); no flow at times.

REMARKS.--Records excellent. Low flow regulated since June 1960 by Dallas Reservoir (usable capacity, 912 acre-ft). Diversion for city of Dallas municipal supply from 4 tributaries and Rickreall Creek above station.

COOPERATION.--Records of diversion, month-end elevations of reservoir, and reservoir capacity curve furnished by city of Dallas.

REVISIONS.--WSP 1718: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	18	215	581	188	128	331	77	32	23	5.4	9.3
2	1.8	16	194	380	165	144	275	79	31	21	4.5	79
3	2.0	14	251	285	141	234	233	85	29	19	3.6	45
4	2.7	15	245	227	233	246	202	86	27	19	5.3	28
5	2.5	17	625	191	224	201	180	79	26	18	1.9	21
6	2.5	32	1,250	162	188	185	167	70	25	16	3.6	18
7	2.3	33	1,350	146	157	224	152	68	24	15	2.6	14
8	4.0	68	709	141	136	262	213	68	23	14	3.3	12
9	3.2	76	443	157	136	235	636	64	22	15	1.4	9.9
10	3.0	65	380	239	298	968	598	59	23	17	4.9	9.1
11	3.2	236	411	215	258	1,400	475	54	22	17	5.9	8.8
12	2.7	236	323	188	210	1,300	397	54	21	14	5.1	8.4
13	2.0	141	264	159	182	778	321	56	23	12	6.4	6.5
14	1.5	96	285	146	210	572	262	51	28	10	4.8	7.1
15	1.2	116	505	1,380	309	460	225	52	23	9.6	2.5	8.4
16	1.1	351	894	2,330	301	362	202	113	20	8.8	2.5	7.4
17	1.7	233	643	1,790	252	294	191	89	20	8.1	2.0	6.8
18	2.5	191	420	1,090	228	248	167	77	23	7.8	1.9	7.4
19	2.3	141	307	1,100	204	219	148	68	24	6.9	4.0	7.1
20	3.8	114	257	733	178	198	136	62	22	7.5	1.8	7.4
21	6.5	95	218	505	158	180	121	57	20	5.8	3.2	5.2
22	8.4	84	182	402	149	234	114	51	18	4.0	3.4	4.7
23	47	288	157	371	135	416	108	47	19	5.3	2.0	5.2
24	134	964	138	407	175	490	99	44	21	5.6	1.8	6.0
25	80	625	127	1,020	216	372	93	46	61	5.6	1.2	7.1
26	59	429	118	845	199	509	93	49	47	5.2	1.6	7.4
27	44	465	120	521	174	497	96	43	38	4.1	1.3	6.8
28	34	375	224	375	147	493	92	39	33	3.3	2.0	8.4
29	28	271	384	292	------	573	84	37	29	3.1	1.9	8.1
30	23	236	1,610	245	------	543	79	35	25	4.6	2.4	7.4
31	20	------	1,260	215	------	419	------	34	------	5.0	4.5	------
TOTAL	532.4	6,041	14,509	16,838	5,551	13,384	6,490	1,893	799	330.3	98.7	386.9
MEAN	17.2	201	468	543	198	432	216	61.1	26.6	10.7	3.18	12.9
MAX	134	964	1,610	2,330	309	1,400	636	113	61	23	6.4	79
MIN	1.1	14	118	141	135	128	79	34	18	3.1	1.2	4.7
AC-FT	1,060	11,980	28,780	33,400	11,010	26,550	12,870	3,750	1,580	655	196	767
MEAN†	28.3	204	472	545	202	434	219	63.6	29.2	12.3	3.89	14.6
CFSM†	1.03	7.45	17.3	19.9	7.37	15.8	7.99	2.32	1.07	.45	.14	.53
IN.†	1.19	8.30	19.87	22.93	7.67	18.27	8.92	2.68	1.19	.52	.16	.59
AC-FT†	1,740	12,130	29,020	33,500	11,200	26,680	13,030	3,910	1,740	754	239	866

CAL YR 1970 TOTAL 58,891.78 MEAN 161 MAX 1,790 MIN 0.44 AC-FT 116,800 MEAN† 165 CFSM† 6.02 IN.† 81.54 AC-FT† 119,100
WTR YR 1971 TOTAL 66,853.3 MEAN 183 MAX 2,330 MIN 1.1 AC-FT 132,600 MEAN† 186 CFSM† 6.79 IN.† 92.29 AC-FT† 134,800

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0500	5.04	1,680	1-16	2030	6.24	3,070
12-30	1630	5.87	2,600	3-10	1800	5.32	1,970

† Adjusted for diversion and change in Dallas Reservoir contents.

14191000 Willamette River at Salem, Oreg.

LOCATION.--Lat 44°56'40", long 123°02'30", in SW¼ sec.22, T.7 S., R.3 W., Marion County, on right bank 300 ft upstream from Center Street Bridge in Salem and at mile 84.16.

DRAINAGE AREA.--7,280 sq mi, approximately.

PERIOD OF RECORD.--October 1909 to December 1916, January 1923 to current year. Monthly discharge only January 1923 to September 1927, published in WSP 1318. Gage-height records collected at about the same site since 1892 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 106.14 ft above mean sea level. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mile upstream at datum 8.00 ft higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft higher

AVERAGE DISCHARGE.--55 years, 23,490 cfs (43.82 inches per year, 17,020,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 142,000 cfs Jan. 26 (gage height, 26.91 ft); minimum, 7,400 cfs Aug. 12 (gage height, 5.32 ft).

Period of record: Maximum discharge, 348,000 cfs Jan. 8, 1923 (gage height, 38.3 ft, present datum); minimum, 2,470 cfs Aug. 27, 1940 (gage height, 3.55 ft, present datum).

Maximum discharge, 500,000 cfs Dec. 4, 1861 (gage height, about 47 ft, present datum), from rating curve extended above 250,000 cfs in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft (discharge, 428,000 cfs) and 45.1 ft (discharge, 448,000 cfs), respectively, from floodmarks and information by Corps of Engineers.

REMARKS.--Records excellent. Flow regulated by 12 reservoirs above station (see elsewhere in this report). Many small diversions for irrigation above station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River below station, through Mill Creek at Salem (see station 14192000). Record of water temperatures and chemical analysis at site 0.4 mile upstream for water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1318: 1915(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,590	16,000	53,500	79,300	56,600	33,300	46,800	23,700	24,000	15,300	7,910	12,800
2	9,860	16,200	55,600	68,800	53,800	31,200	39,900	23,500	24,400	14,300	7,960	15,800
3	10,100	16,100	55,400	51,600	51,700	34,600	34,000	23,600	23,300	13,500	7,890	19,800
4	10,200	14,900	62,900	41,200	52,500	41,000	30,900	24,700	21,600	12,400	7,700	17,800
5	10,600	14,100	61,200	35,500	56,900	44,300	29,300	27,000	19,600	11,900	7,630	14,000
6	11,100	14,700	60,300	30,400	52,500	38,800	28,400	27,000	18,600	11,500	7,600	12,400
7	10,900	15,300	63,500	26,200	48,000	35,200	27,900	26,500	17,900	11,000	7,700	11,800
8	11,200	15,500	67,200	25,200	45,300	34,300	27,300	26,800	19,500	9,860	7,700	12,100
9	11,200	17,500	61,900	35,200	40,000	33,500	37,700	27,100	20,200	8,970	7,680	12,500
10	10,800	20,000	54,000	50,800	36,300	31,400	58,100	26,300	19,500	8,860	7,650	12,500
11	10,300	21,500	49,200	57,900	44,500	41,800	61,100	25,800	18,400	9,280	7,580	13,000
12	10,500	28,300	46,400	58,500	41,000	63,800	57,700	26,100	18,800	9,160	7,500	12,900
13	10,300	33,200	42,700	59,300	37,400	77,800	48,200	28,400	18,800	8,970	8,250	13,200
14	10,400	30,500	39,900	54,100	36,000	77,100	39,800	30,300	19,400	8,690	9,800	13,600
15	10,100	24,700	41,800	66,100	38,500	66,500	34,300	26,800	19,800	8,350	10,100	12,500
16	10,000	23,300	55,700	97,200	44,000	55,400	31,700	24,100	18,500	8,170	10,300	12,600
17	10,200	25,400	70,200	110,000	43,600	46,900	29,900	23,900	17,100	8,300	10,300	12,200
18	10,200	25,200	69,000	115,000	36,600	39,100	29,800	21,600	16,100	8,830	10,200	10,700
19	10,400	25,400	52,800	123,000	31,600	30,600	29,200	20,100	16,000	9,000	10,100	9,530
20	10,700	26,800	40,800	137,000	29,900	26,700	27,800	19,900	16,600	8,740	10,200	9,530
21	11,200	28,900	35,900	129,000	28,000	24,400	26,200	20,600	15,800	8,410	10,200	8,630
22	12,200	28,500	32,500	114,000	26,800	23,800	25,200	20,400	16,100	8,200	10,600	8,690
23	14,100	28,800	26,700	103,000	26,700	31,100	23,500	17,900	17,700	8,090	11,000	9,190
24	19,300	41,200	23,300	102,000	23,900	47,500	23,800	14,200	17,800	8,120	11,400	8,970
25	21,500	65,900	20,800	103,000	27,100	58,300	24,100	14,600	18,800	7,780	11,300	11,000
26	20,600	63,700	19,100	106,000	30,300	61,800	24,300	19,900	24,300	7,830	10,300	12,600
27	19,400	63,600	18,300	103,000	32,500	64,800	25,600	26,300	26,200	7,780	11,200	14,200
28	18,100	65,700	19,000	94,600	35,200	63,300	26,500	28,400	22,600	7,630	11,500	13,700
29	17,100	58,200	28,900	84,500	------	56,300	25,800	27,700	19,300	8,020	12,000	15,100
30	16,700	52,300	44,700	68,300	------	50,200	24,700	27,500	16,700	7,910	12,500	17,300
31	15,800	------	71,800	60,400	------	50,400	------	25,500	------	7,890	12,000	------
TOTAL	394,650	921,400	1,445.0M	2,390.1M	1,107.2M	1,415.2M	999,500	746,200	583,400	292,740	295,750	380,640
MEAN	12,730	30,710	46,610	77,100	39,540	45,650	33,320	24,070	19,450	9,443	9,540	12,690
MAX	21,500	65,900	71,800	137,000	56,900	77,800	61,100	30,300	26,200	15,300	12,500	19,800
MIN	9,590	14,100	18,300	25,200	23,900	23,800	23,500	14,200	15,800	7,630	7,500	8,630
CFSM	1.75	4.22	6.40	10.6	5.43	6.27	4.58	3.31	2.67	1.30	1.31	1.74
IN.	2.02	4.71	7.38	12.21	5.66	7.23	5.11	3.81	2.98	1.50	1.51	1.95
AC-FT	782,800	1,828M	2,866M	4,741M	2,196M	2,807M	1,983M	1,480M	1,157M	580,600	586,600	755,000

CAL YR 1970 TOTAL 9,166,730 MEAN 25,110 MAX 132,000 MIN 6,550 CFSM 3.45 IN 46.84 AC-FT 18,180,000
WTR YR 1971 TOTAL 10,971,780 MEAN 30,060 MAX 137,000 MIN 7,500 CFSM 4.13 IN 56.06 AC-FT 21,760,000

14192000 Mill Creek at Salem, Oreg.

LOCATION.--Lat 44°56'05", long 123°01'00", in NE¼ sec.26, T.7 S., R.3 W., Marion County, on left bank at State Street Bridge in Salem, 220 ft downstream from 19th Street power diversion and at mile 2.11.

DRAINAGE AREA.--110 sq mi.

PERIOD OF RECORD.--November, December 1934, August to October 1938, May 1939 to current year. Prior to October 1940 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 166.12 ft above mean sea level. See WSP 1738 for history of changes prior to Oct. 10, 1940.

AVERAGE DISCHARGE.--32 years (1939-71), 139 cfs (100,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 891 cfs Jan. 15 (gage height, 4.98 ft); minimum, 16 cfs Aug. 14.
Period of record: Maximum discharge, 1,870 cfs Dec. 23, 1964 (gage height, 8.36 ft); no flow Oct. 2, 1938.

REMARKS.--Records good. Diurnal fluctuation caused by powerplant above station. Salem power canal diverts water into Mill Creek near Stayton. Several diversions from Mill Creek, including Shelton flood bypass 1.2 miles upstream and 19th Street power diversion 220 ft upstream.

REVISIONS (WATER YEARS).--WSP 1218: Drainage area. WSP 1718: 1954(M), 1956(M), 1958(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	101	266	340	145	172	127	114	125	126	83	98
2	48	103	258	258	133	180	118	111	120	125	75	107
3	48	97	323	217	123	285	109	107	120	125	54	86
4	51	84	292	191	201	277	104	113	120	138	50	60
5	67	93	247	170	187	242	87	115	120	114	54	45
6	68	117	234	157	158	217	87	113	115	107	48	43
7	54	101	273	145	143	217	82	116	115	97	59	38
8	54	50	230	208	130	198	94	113	115	97	68	35
9	55	60	192	292	129	186	350	116	115	97	55	33
10	52	68	183	323	161	222	311	131	110	106	42	34
11	53	147	192	337	139	277	301	128	110	120	33	32
12	51	177	164	275	125	385	251	131	110	113	33	33
13	46	121	154	229	116	337	212	144	110	98	79	33
14	47	113	168	221	121	285	193	138	120	93	54	33
15	46	97	230	637	182	252	172	141	110	88	55	30
16	47	149	451	618	187	213	162	149	110	78	46	30
17	46	111	321	477	158	189	160	143	110	68	36	29
18	56	91	227	378	166	170	154	136	110	57	31	27
19	56	91	188	455	171	156	140	131	110	72	30	39
20	64	88	190	419	153	142	138	131	110	43	32	53
21	80	82	188	300	141	129	163	129	110	42	44	50
22	90	81	158	263	162	149	167	128	106	44	74	57
23	110	128	140	268	166	175	163	126	109	52	84	48
24	121	305	164	240	157	163	162	122	114	52	63	40
25	122	303	156	336	203	144	154	127	205	60	34	46
26	116	228	121	273	201	181	143	155	169	50	34	44
27	100	268	123	225	219	154	136	152	151	49	31	44
28	90	209	179	201	194	146	130	142	139	43	33	47
29	92	175	330	182	------	135	124	133	131	32	40	65
30	113	192	445	168	------	141	119	130	130	31	44	59
31	104	------	614	156	------	146	------	125	------	49	63	------
TOTAL	2,185	4,030	7,401	8,959	4,471	6,265	4,813	3,990	3,649	2,466	1,561	1,418
MEAN	70.5	134	239	289	160	202	160	129	122	79.5	50.4	47.3
MAX	122	305	614	637	219	385	350	155	205	138	84	107
MIN	41	50	121	145	116	129	82	107	106	31	30	27
AC-FT	4,330	7,990	14,680	17,770	8,870	12,430	9,550	7,910	7,240	4,890	3,100	2,810

CAL YR 1970 TOTAL 48,205 MEAN 132 MAX 764 MIN 22 AC-FT 95,610
WTR YR 1971 TOTAL 51,208 MEAN 140 MAX 637 MIN 27 AC-FT 101,600

14192500 South Yamhill River near Willamina, Oreg.

LOCATION.--Lat 45°02'50", long 123°30'10", in sec.14, T.6 S., R.7 W., Polk County, on left bank 2.3 miles southwest of Willamina, 2.8 miles upstream from Willamina Creek, and at mile 45.5.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--May 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 235.55 ft above mean sea level.

AVERAGE DISCHARGE.--37 years, 624 cfs (63.71 inches per year, 452,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,300 cfs Dec. 30 (gage height, 11.37 ft); minimum, 15 cfs Oct. 3, 4.
Period of record: Maximum discharge, 19,600 cfs Dec. 22, 1964 (gage height, 17.07 ft); minimum, 2.6 cfs Oct. 11, 1952.

REMARKS.--Records excellent except those below 25 cfs, which are fair. Slight regulation occasionally at low flows by millpond upstream. No diversion above station.

REVISIONS (WATER YEARS).--WSP 814: Drainage area. WSP 1318: 1934.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	94	1,290	2,690	729	756	1,200	283	148	111	34	200
2	16	84	1,170	1,760	631	913	1,030	270	141	103	31	350
3	15	78	1,970	1,280	553	1,480	866	258	133	96	29	180
4	15	79	1,670	988	1,310	1,290	751	249	127	90	29	130
5	16	105	2,700	798	976	1,070	662	240	119	87	29	120
6	20	233	6,370	673	795	1,070	599	228	115	85	29	110
7	24	236	5,900	586	695	1,350	552	213	115	80	26	90
8	20	461	3,000	693	613	1,340	833	201	110	75	25	86
9	18	379	1,910	1,380	609	1,170	2,820	191	103	92	23	82
10	22	311	1,670	1,670	1,140	3,820	2,330	182	110	91	22	75
11	24	927	1,680	1,520	847	5,390	1,860	172	105	95	20	73
12	20	940	1,260	1,200	747	5,270	1,460	159	98	84	19	68
13	18	597	1,120	1,020	669	3,600	1,190	171	108	74	18	61
14	17	443	1,430	892	803	2,650	988	161	172	68	20	57
15	16	494	2,620	7,570	1,110	2,090	846	160	118	63	20	52
16	16	935	4,630	7,720	1,080	1,620	759	601	104	58	19	47
17	16	658	2,970	6,500	932	1,280	750	423	98	55	18	41
18	32	701	1,980	3,900	917	1,050	632	348	110	52	18	39
19	59	602	1,430	4,030	885	880	554	307	122	48	18	39
20	88	559	1,250	3,020	760	762	516	291	107	46	19	38
21	243	516	1,030	2,220	684	671	474	268	98	42	22	37
22	413	453	821	2,060	704	868	445	238	90	40	26	35
23	942	879	706	2,590	641	1,390	448	218	99	39	24	35
24	585	3,600	618	2,920	873	1,460	426	202	96	39	20	36
25	383	2,410	552	6,220	1,220	1,110	398	204	374	37	17	45
26	302	1,810	512	4,600	1,110	2,150	372	207	226	35	16	72
27	221	2,030	556	2,700	1,040	2,000	354	187	174	34	17	52
28	174	1,520	1,250	1,830	881	1,910	339	169	152	34	18	76
29	143	1,150	1,950	1,350	------	1,890	319	159	135	34	17	207
30	122	1,160	6,390	1,060	------	1,890	300	160	122	34	19	179
31	106	------	5,510	861	------	1,490	------	154	------	36	50	------
TOTAL	4,123	24,444	67,915	78,301	23,954	55,680	25,073	7,274	3,929	1,957	712	2,712
MEAN	133	815	2,191	2,526	856	1,796	836	235	131	63.1	23.0	90.4
MAX	942	3,600	6,390	7,720	1,310	5,390	2,820	601	374	111	50	350
MIN	15	78	512	586	553	671	300	154	90	34	16	35
CFSM	1.00	6.13	16.5	19.0	6.44	13.5	6.29	1.77	.99	.47	.17	.68
IN.	1.15	6.84	19.00	21.90	6.70	15.57	7.01	2.03	1.10	.55	.20	.76
AC-FT	8,180	48,480	134,700	155,300	47,510	110,400	49,730	14,430	7,790	3,880	1,410	5,380

CAL YR 1970 TOTAL 249,521.5 MEAN 684 MAX 6,390 MIN 7.9 CFSM 5.14 IN 69.79 AC-FT 494,900
WTR YR 1971 TOTAL 296,074.0 MEAN 811 MAX 7,720 MIN 15 CFSM 6.10 IN 82.81 AC-FT 587,300

PEAK DISCHARGE (BASE, 5,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0500	9.53	7,540	1-25	1900	8.79	6,510
12-30	2000	11.37	10,300	3-11	2030	9.93	8,100
1-16	2200	10.93	9,600				

14193000 Willamina Creek near Willamina, Oreg.

LOCATION.--Lat 45°08'35", long 123°29'35", in NE¼SW¼ sec.13, T.5 S., R.7 W., Yamhill County, on right bank 4.5 miles north of Willamina and at mile 6.2.

DRAINAGE AREA.--64.7 sq mi.

PERIOD OF RECORD.--June 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 315 ft above mean sea level (plane-table survey). Prior to Oct. 1, 1939, water-stage recorder at site on left bank at datum 1.00 ft higher. Oct. 1, 1939, to Aug. 5, 1968, water-stage recorder at site on left bank at present datum.

AVERAGE DISCHARGE.--37 years, 261 cfs (54.78 inches per year, 189,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,940 cfs Jan. 16 (gage height, 8.90 ft); minimum, 11 cfs Oct. 4.

Period of record: Maximum discharge, 10,800 cfs Dec. 22, 1964 (gage height, 13.56 ft), from rating curve extended above 3,400 cfs on basis of slope-area measurement at gage height 11.65 ft; minimum, 5.4 cfs July 15, 1967.

Flood of Mar. 31, 1931, reached a stage of about 12 ft, from information by local resident (discharge, 8,200 cfs from rating curve extended above 3,400 cfs on basis of slope-area measurement at gage height 11.65 ft).

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	50	393	1,120	474	350	632	159	77	49	24	78
2	13	45	356	777	420	357	566	154	75	47	22	136
3	12	40	440	602	377	449	502	148	73	45	21	62
4	12	40	401	495	492	438	460	143	70	44	21	40
5	14	55	706	425	417	391	432	135	67	44	22	39
6	16	100	2,780	376	372	402	412	129	66	44	21	36
7	15	110	2,820	338	341	475	384	123	66	41	20	29
8	14	150	1,420	365	315	491	443	117	64	40	19	27
9	14	134	875	504	331	476	920	113	62	42	18	26
10	16	110	831	580	505	1,550	865	108	64	43	18	24
11	15	459	888	551	435	2,360	764	103	61	43	17	24
12	14	354	675	488	400	2,430	653	99	59	39	15	23
13	14	239	573	447	372	1,740	569	100	68	37	15	22
14	13	176	688	422	411	1,320	499	95	74	35	16	20
15	12	167	1,100	919	505	1,060	449	97	61	34	16	19
16	12	224	1,790	2,350	518	828	415	221	57	32	15	18
17	12	191	1,300	2,800	462	692	384	157	56	30	15	16
18	16	248	885	1,980	455	594	341	135	66	29	15	15
19	26	224	661	2,050	423	527	310	122	61	29	15	15
20	40	207	557	1,470	385	487	288	116	56	28	15	15
21	90	186	472	1,100	357	454	263	107	53	26	16	15
22	160	166	402	1,040	349	548	252	100	50	25	20	15
23	380	237	356	1,230	326	760	244	94	49	25	18	15
24	320	734	321	1,490	435	836	225	90	60	25	15	16
25	220	539	294	3,230	532	708	212	99	154	25	14	20
26	180	488	275	2,350	476	856	203	97	84	24	14	22
27	130	589	279	1,410	434	890	196	90	68	23	14	20
28	100	484	429	977	390	836	186	82	62	23	15	32
29	80	400	605	741	------	820	176	80	57	23	14	65
30	65	401	2,230	616	------	824	166	80	52	23	15	49
31	55	------	2,020	537	------	732	------	78	------	25	27	------
TOTAL	2,093	7,547	27,819	33,780	11,709	25,681	12,411	3,571	1,992	1,042	542	953
MEAN	67.5	252	897	1,090	418	828	414	115	66.4	33.6	17.5	31.8
MAX	380	734	2,820	3,230	532	2,430	920	221	154	49	27	136
MIN	12	40	275	338	315	350	166	78	49	23	14	15
CFSM	1.04	3.89	13.9	16.8	6.46	12.8	6.40	1.78	1.03	.52	.27	.49
IN.	1.20	4.34	15.99	19.42	6.73	14.77	7.14	2.05	1.15	.60	.31	.55
AC-FT	4,150	14,970	55,180	67,000	23,220	50,940	24,620	7,080	3,950	2,070	1,080	1,890

CAL YR 1970 TOTAL 105,536 MEAN 289 MAX 2,820 MIN 11 CFSM 4.47 IN 60.66 AC-FT 209,300
WTR YR 1971 TOTAL 129,140 MEAN 354 MAX 3,230 MIN 12 CFSM 5.47 IN 74.25 AC-FT 256,100

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0530	8.56	3,600	1-25	1700	8.32	3,360
12-30	1830	8.67	3,710	3-11	2000	8.32	3,460
1-16	1900	8.90	3,940				

14193300 Mill Creek near Willamina, Oreg.

LOCATION.--Lat 44°58'15", long 123°26'55", in NE¼NW¼ sec.17, T.7 S., R.6 W., Polk County, on left bank 0.2 miles upstream from bridge, 0.7 mile downstream from South Branch, 7.5 miles south of Willamina, and at mile 11.5.

DRAINAGE AREA.--27.4 sq mi.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--13 years, 142 cfs (70.38 inches per year, 102,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,380 cfs Jan. 15 (gage height, 8.53 ft); minimum, 3.5 cfs Oct. 2-4.
Period of record: Maximum discharge, 6,170 cfs Dec. 22, 1964 (gage height, 11.47 ft); minimum, 2.6 cfs Sept. 8, 1958.

REMARKS.--Records excellent. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1718: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	22	201	540	149	94	264	67	29	23	7.7	46
2	3.7	20	190	352	128	121	216	71	28	21	7.4	102
3	3.5	19	354	250	110	209	184	76	27	20	7.1	45
4	3.5	20	273	192	241	200	157	74	26	19	7.4	29
5	3.7	23	767	155	224	155	146	67	25	18	7.7	24
6	4.2	49	1,420	130	169	149	144	59	24	18	7.4	21
7	4.2	52	1,530	114	138	236	130	57	23	17	7.1	17
8	3.9	94	676	130	118	270	216	57	22	16	6.5	15
9	3.9	97	398	238	116	214	922	52	22	16	6.3	14
10	3.9	83	331	301	262	1,060	653	47	22	17	5.8	13
11	3.9	300	389	233	205	1,540	449	44	21	17	5.5	12
12	3.9	274	274	180	161	1,330	349	44	21	16	5.3	12
13	3.9	155	214	144	138	695	275	44	22	15	5.0	11
14	3.9	101	285	131	159	497	229	41	25	14	5.8	9.8
15	3.7	141	768	2,340	244	376	195	43	22	13	5.8	9.2
16	3.7	413	1,220	2,530	259	284	169	103	21	12	5.5	8.6
17	3.9	243	693	1,700	209	229	167	83	20	12	5.3	8.0
18	7.4	172	418	936	178	189	151	72	21	11	5.3	8.0
19	8.4	132	283	910	159	165	135	62	21	11	5.0	7.7
20	19	107	242	581	140	149	123	56	20	10	5.0	7.4
21	64	89	206	380	125	138	108	49	19	9.5	6.0	7.4
22	109	77	170	304	118	221	99	45	18	9.2	6.3	7.1
23	289	282	143	304	108	461	92	41	18	9.2	5.8	7.1
24	191	1,010	125	373	153	457	86	39	21	8.9	5.3	7.1
25	108	607	111	1,090	180	307	81	39	60	8.6	5.0	8.6
26	76	428	102	760	151	622	83	42	46	8.6	4.8	11
27	55	502	109	429	130	533	87	37	35	8.3	4.8	9.2
28	42	364	289	289	111	473	81	34	31	8.3	5.3	16
29	33	239	455	221	------	554	73	32	28	8.0	4.8	26
30	28	205	1,800	189	------	517	68	31	25	8.0	5.0	24
31	25	------	1,140	173	------	352	------	30	------	8.3	9.8	------
TOTAL	1,119.9	6,320	15,576	16,597	4,583	12,797	6,132	1,638	763	410.9	186.8	543.2
MEAN	36.1	211	502	535	164	413	204	52.8	25.4	13.3	6.03	18.1
MAX	289	1,010	1,800	2,530	262	1,540	922	103	60	23	9.8	102
MIN	3.5	19	102	114	108	94	68	30	18	8.0	4.8	7.1
CFSM	1.32	7.70	18.3	19.5	5.99	15.1	7.45	1.93	.93	.49	.22	.66
IN.	1.52	8.58	21.15	22.53	6.22	17.37	8.33	2.22	1.04	.56	.25	.74
AC-FT	2,220	12,540	30,900	32,920	9,090	25,380	12,160	3,250	1,510	815	371	1,080

CAL YR 1970 TOTAL 59,229.1 MEAN 162 MAX 1,800 MIN 3.1 CFSM 5.91 IN 80.41 AC-FT 117,500
WTR YR 1971 TOTAL 66,666.8 MEAN 183 MAX 2,530 MIN 3.5 CFSM 6.68 IN 90.51 AC-FT 132,200

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 5	2230	6.75	1,820	1-15	1900	8.53	3,380
12- 7	0400	7.12	2,120	3-11	2000	7.39	2,360
12-30	1800	8.18	3,060	4- 9	1400	6.16	1,430

14194000 South Yamhill River near Whiteson, Oreg.

LOCATION.--Lat 45°10'08", long 123°12'25", in NW¼ sec.5, T.5 S., R.4 W., Yamhill County, near left bank on downstream side of Whiteson Bridge on U.S. Highway 99W, 1.3 miles northwest of Whiteson, 1.4 miles downstream from Salt Creek, and at mile 16.71.

DRAINAGE AREA.--502 sq mi.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 82.30 ft above mean sea level. Prior to Sept. 20, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--31 years, 1,763 cfs (48.23 inches per year, 1,292,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,000 cfs Jan. 17 (gage height, 43.25 ft); minimum, 29 cfs Oct. 5, 7.
Period of record: Maximum discharge, 47,200 cfs Dec. 23, 1964 (gage height, 47.20 ft); minimum, 3.2 cfs Aug. 24, 1967.
Flood on December 1937 reached a stage of 46.9 ft, from Oregon State Highway Department bridge plans.

REMARKS.--Records excellent except those for period of backwater, which are good. Slight regulation during low-water periods by log-pond upstream. Many small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	130	3,500	16,100	2,840	2,970	4,420	900	329	218	60	74
2	33	123	3,900	11,300	2,420	2,560	3,590	850	328	199	62	631
3	31	109	4,260	7,320	2,100	3,910	3,020	800	311	183	55	835
4	30	103	6,320	4,370	2,480	5,620	2,570	750	296	169	52	383
5	30	112	5,660	3,020	3,490	5,410	2,260	700	279	161	50	246
6	30	164	7,730	2,430	2,770	4,290	2,030	652	263	156	51	223
7	33	294	14,200	2,090	2,320	4,130	1,920	620	256	148	52	188
8	40	438	16,400	1,960	2,030	4,580	1,800	580	253	137	50	152
9	43	649	12,100	2,820	1,860	4,110	3,950	540	239	131	48	132
10	36	525	8,090	3,850	2,580	4,223	8,090	520	233	155	49	124
11	37	746	6,360	4,620	2,970	9,010	8,060	480	239	161	47	114
12	39	2,310	5,270	4,450	2,480	16,700	6,630	460	221	157	45	112
13	37	1,580	4,040	3,860	2,180	17,200	5,050	412	216	137	42	103
14	34	960	3,610	3,230	1,990	13,800	3,860	428	273	123	41	94
15	36	678	5,560	6,320	2,840	11,000	3,070	402	283	114	45	87
16	33	1,330	8,480	23,500	3,370	8,270	2,590	743	226	105	47	81
17	32	1,690	12,500	25,500	3,130	5,860	2,460	1,120	206	98	41	76
18	34	1,280	10,900	18,800	2,740	4,210	2,210	803	207	92	37	70
19	43	1,290	7,690	15,200	2,840	3,340	1,960	679	241	84	37	66
20	69	1,020	5,010	14,000	2,480	2,830	1,790	612	231	77	39	66
21	129	932	4,000	11,500	2,200	2,470	1,660	583	207	73	40	65
22	401	774	3,270	8,750	2,030	2,340	1,520	528	194	68	45	63
23	1,020	762	2,690	7,630	2,000	3,180	1,420	481	179	65	53	62
24	1,290	3,250	2,240	7,630	1,940	4,480	1,360	442	186	65	53	65
25	750	6,210	1,970	9,630	3,400	4,000	1,290	428	382	65	45	73
26	986	5,420	1,810	16,000	3,950	4,310	1,220	462	578	67	38	84
27	396	5,040	1,760	14,000	3,900	5,980	1,140	438	373	60	36	107
28	288	5,070	2,410	10,400	3,450	6,050	1,050	388	311	58	38	95
29	224	3,830	5,650	7,130	------	5,840	1,000	352	273	55	39	159
30	182	2,890	7,360	4,610	------	5,730	950	337	244	57	40	335
31	157	------	17,300	3,410	------	5,440	------	338	------	56	46	------
TOTAL	6,151	49,717	202,040	275,400	74,780	183,840	83,940	17,828	8,057	3,494	1,423	4,935
MEAN	198	1,657	6,517	8,884	2,671	5,930	2,798	575	269	113	45.9	165
MAX	1,290	6,210	17,300	25,500	3,950	17,200	8,090	1,120	578	218	62	805
MIN	30	103	1,760	1,960	1,860	2,340	950	337	179	55	36	62
CFSM	39	3.30	13.0	17.7	5.32	11.8	5.57	1.15	.54	.23	.09	.33
IN.	.46	3.68	14.97	20.41	5.54	13.62	6.22	1.32	.60	.26	.11	.37
AC-FT	12,200	98,610	400,700	546,300	148,300	364,600	166,500	35,360	15,980	6,930	2,820	9,790

CAL YR 1970 TOTAL 750,607 MEAN 2,056 MAX 19,700 MIN 13 CFSM 4.10 IN 55.62 AC-FT 1,489,000
WTR YR 1971 TOTAL 911,605 MEAN 2,498 MAX 25,500 MIN 30 CFSM 4.98 IN 67.55 AC-FT 1,808,000

PEAK DISCHARGE (BASE, 13,000 CFS)

NOTE.--Backwater from debris Oct. 1 to Nov. 24.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	2400	40.99	18,000	1-26	1330	40.49	17,000
12-31	1430	42.07	21,500	3-12	1730	41.40	19,300
1-17	1100	43.25	27,000				

14194300 North Yamhill River near Fairdale, Oreg.

LOCATION.--Lat 45°21'55", long 123°22'40", in SW¼ sec.25, T.2 S., R.6 W., Yamhill County, on right bank 0.4 mile downstream from small tributary, 1.3 miles upstream from Kutch Creek, 2.1 miles west of Fairdale, 9.5 miles west of Yamhill, and at mile 28.4.

DRAINAGE AREA.--9.03 sq mi.

PERIOD OF RECORD.--October 1958 to March 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (from topographic map).

AVERAGE DISCHARGE.--11 years (1958-65, 1967-71), 49.3 cfs (74.14 inches per year, 35,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 715 cfs Dec. 24 (gage height, 5.01 ft, from floodmark); minimum, 2.8 cfs Oct. 2-4.
Period of record: Maximum discharge, 2,330 cfs Dec. 22, 1964 (gage height, 6.88 ft), from rating curve extended above 830 cfs; maximum gage height, 9.7 ft Dec. 23 (backwater from debris); minimum discharge, 2.3 cfs Sept. 23-26, 1965.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	8.1	58	200	102	54	128	41	20	13	6.3	18
2	2.9	7.7	50	140	87	56	111	43	19	13	6.0	29
3	2.9	7.4	49	100	76	65	96	44	19	12	5.8	14
4	3.1	8.1	43	81	82	58	88	43	18	12	5.8	9.7
5	3.4	9.5	100	76	69	52	87	41	17	12	6.0	9.7
6	3.8	11	405	69	62	49	88	36	17	12	5.8	8.2
7	3.4	15	423	62	56	53	82	36	17	11	5.4	7.3
8	3.3	28	230	73	52	52	93	35	16	11	5.2	6.8
9	3.4	24	137	128	56	51	151	32	16	12	5.0	6.3
10	3.6	23	128	153	92	154	145	30	16	11	4.8	6.0
11	3.4	70	131	125	84	244	122	29	15	11	4.6	6.0
12	3.3	76	110	103	79	313	105	29	15	10	4.4	5.8
13	3.3	57	110	88	74	209	92	28	17	9.7	4.6	5.6
14	3.1	43	150	78	82	162	84	26	16	9.4	4.8	5.4
15	3.1	41	240	209	114	130	79	29	14	8.8	4.8	5.0
16	2.9	56	360	366	122	107	76	67	14	8.5	4.6	4.8
17	3.1	51	240	411	102	90	70	45	14	8.2	4.6	4.6
18	4.8	60	160	322	92	79	63	40	15	7.9	4.4	4.6
19	4.8	53	120	370	78	73	58	37	14	7.6	4.4	4.4
20	9.9	48	100	263	70	69	55	36	13	7.3	4.4	4.4
21	20	42	95	189	64	65	52	32	12	7.0	4.8	4.4
22	25	37	85	178	61	85	49	30	12	6.8	5.2	4.2
23	39	55	75	200	56	143	47	28	12	6.8	4.8	4.2
24	35	145	70	292	82	173	44	27	17	6.8	4.4	4.6
25	35	110	65	582	88	140	43	28	27	6.5	4.2	5.0
26	23	91	60	421	78	191	45	26	18	6.3	4.2	5.2
27	16	115	70	239	70	184	48	24	17	6.3	4.0	5.0
28	13	91	90	169	61	160	47	23	16	6.3	4.0	9.1
29	11	71	130	132	------	180	44	22	15	6.0	4.0	12
30	9.9	66	550	118	------	195	42	21	14	6.3	4.4	8.5
31	8.8	------	340	112	------	160	------	21	------	6.5	7.0	------
TOTAL	310.3	1,519.8	4,974	6,049	2,191	3,796	2,334	1,029	482	279.0	152.7	227.8
MEAN	10.0	50.7	160	195	78.3	122	77.8	33.2	16.1	9.00	4.93	7.59
MAX	39	145	550	582	122	313	151	67	27	13	7.0	29
MIN	2.9	7.4	43	62	52	49	42	21	12	6.0	4.0	4.2
CFSM	1.11	5.61	17.7	21.6	8.67	13.5	8.62	3.68	1.78	1.00	.55	.84
IN.	1.28	6.26	20.49	24.92	9.03	15.64	9.62	4.24	1.99	1.15	.63	.94
AC-FT	615	3,010	9,870	12,000	4,350	7,530	4,630	2,040	956	553	303	452

CAL YR 1970 TOTAL 18,695.2 MEAN 51.2 MAX 550 MIN 2.8 CFSM 5.67 IN 77.02 AC-FT 37,080
WTR YR 1971 TOTAL 23,344.6 MEAN 64.0 MAX 582 MIN 2.9 CFSM 7.09 IN 96.17 AC-FT 46,300

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0200	4.78	617	1-24	2400	4.77	618
12-24	Unknown	5.01	715	3-12	0030	4.06	358
1-16	2300	4.45	490				

NOTE.--No gage-height record Dec. 12 to Jan. 4.

14195500 Haskins Creek Reservoir near McMinnville, Oreg.

LOCATION.--Lat 45°18'40", long 123°21'15", in NW¼ sec.18, T.3 S., R.5 W., Yamhill County, on control tower 250 ft upstream from dam on Haskins Creek, 11 miles northwest of McMinnville, and at mile 5.1.

DRAINAGE AREA.--6.88 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by city of McMinnville).

EXTREMES.--Current year: Maximum contents observed, 740 acre-ft Dec. 7, (elevation, 835.3 ft); no contents, Dec. 25 to Apr. 14.
Period of record: Maximum contents observed, 748 acre-ft Nov. 17, 1954 (elevation, 835.65 ft); no contents most of time during winter months.

REMARKS.--Reservoir is formed by earthfill dam equipped with 5 siphon spillways which act as overflow weirs until priming occurs (approximately 835.5 ft elevation). Capacity of reservoir is 733 acre-ft between elevations 761.5 (invert of outlet tunnel) and 835.0 ft (crest of siphon spillways). Dead storage negligible. Rated capacity of 3 siphons is 700 cfs each and remaining 2 siphons 350 cfs each. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be some temporary storage. Water is used for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

REVISIONS.--WSP 1738: Drainage area.

MONTHEND ELEVATION AND CONTENTS AT 0800, OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	823.0	489	-
Oct. 31	829.3	609	+120
Nov. 30	835.2	738	+129
Dec. 31	-	0	-738
CAL YR 1970	-	-	0
Jan. 31	-	0	0
Feb. 28	-	0	0
Mar. 31	-	0	0
Apr. 30	835.0	733	+733
May 31	834.7	726	-7
June 30	834.7	726	0
July 31	833.5	699	-27
Aug. 31	834.6	724	+25
Sept.30	831.5	656	-68
WTR YR 1971	-	-	+167

14196000 Haskins Creek below reservoir, near McMinnville, Oreg.

LOCATION.--Lat 45°18'40", long 123°20'55", in NE¼ sec.18, T.3 S., R.5 W., Yamhill County, on right bank 800 ft downstream from Haskins Creek Reservoir, 11 miles northwest of McMinnville, and at mile 5.0

DRAINAGE AREA.--6.90 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 707 ft above mean sea level (topographic survey of 1955). Prior to Aug. 5, 1952, water-stage recorder at site 600 ft upstream at different datum.

AVERAGE DISCHARGE.--20 years, 32.9 cfs (64.75 inches per year, 23,840 acre-ft per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum daily discharge, 350 cfs Jan. 25; minimum daily, 1.4 cfs Oct. 8.
Period of record: Maximum daily discharge, 550 cfs (estimated) Dec. 23, 1964; minimum daily, 0.10 cfs Oct. 27, 28, 1966.

REMARKS.--Records excellent except those below 5.0 cfs, which are fair. All records given herein include flow in pipeline which diverts 600 ft above station for municipal supply of McMinnville. Flow regulated by Haskins Creek Reservoir (see station 14195500), during winter months reservoir is empty except when inflow exceeds capacity of outlet tunnel. Monthly figures adjusted for diversion from McGuire Lake in the Nestucca River basin.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.4	40	137	76	37	95	24	12	7.4	7.1	20
2	6.0	5.1	69	98	67	39	85	23	12	7.8	7.5	22
3	5.9	7.1	86	80	60	45	73	21	11	7.5	10	8.8
4	5.9	7.0	83	67	68	41	66	20	11	7.8	10	6.9
5	4.8	7.6	91	56	57	36	62	19	10	6.7	9.7	6.3
6	3.4	8.2	132	51	50	36	60	18	10	6.4	9.4	6.0
7	1.9	8.8	291	45	45	42	56	18	9.3	7.1	9.4	5.1
8	1.4	11	176	47	41	40	73	18	9.6	7.8	8.5	4.6
9	5.1	11	131	69	45	40	127	17	9.1	8.4	8.3	5.6
10	4.2	9.5	129	80	65	117	108	17	10	6.2	10	5.2
11	3.0	9.6	128	72	56	187	95	16	9.1	5.7	11	4.7
12	3.0	31	127	61	52	230	83	16	8.9	5.6	11	4.4
13	4.9	30	122	53	47	176	72	15	9.9	8.1	11	4.4
14	4.9	23	118	49	56	137	33	15	11	8.0	11	5.2
15	7.5	21	117	162	67	107	3.6	16	8.5	9.7	8.2	5.0
16	7.8	28	141	242	69	89	3.5	34	8.2	9.8	7.0	6.0
17	7.8	25	170	283	60	76	3.5	25	8.3	9.8	9.9	6.9
18	7.8	30	155	226	58	67	3.5	21	9.6	9.8	9.1	6.9
19	3.8	25	152	244	51	61	3.6	19	9.1	8.5	11	5.5
20	3.8	23	144	199	46	56	3.9	17	8.0	9.4	13	5.1
21	5.3	20	137	156	42	52	4.1	16	7.1	10	11	6.6
22	5.9	18	126	145	40	69	3.5	15	7.3	11	11	7.2
23	6.1	21	158	147	35	90	3.3	15	7.9	9.6	8.9	7.1
24	6.1	79	77	190	52	103	25	13	8.8	8.6	8.0	6.8
25	3.9	66	38	350	56	95	28	15	16	8.9	9.0	5.3
26	3.6	47	35	330	50	157	27	15	10	7.8	9.6	4.3
27	3.6	62	35	205	46	146	27	13	9.0	10	9.7	4.2
28	4.1	47	50	150	41	128	26	13	8.6	11	8.5	4.6
29	4.2	42	60	111	------	132	23	13	7.4	8.3	8.4	4.3
30	4.3	42	253	95	------	141	23	12	7.4	10	7.3	4.2
31	4.3	------	246	86	------	115	------	12	------	7.7	12	------
TOTAL	150.1	769.3	3,817	4,286	1,498	2,887	1,299.5	542	284.1	260.4	295.5	200.2
MEAN	4.84	25.6	123	138	53.5	93.1	43.3	17.5	9.47	8.40	9.53	6.67
MAX	7.8	79	291	350	76	230	127	34	16	11	13	22
MIN	1.4	4.4	35	45	35	36	3.3	12	7.1	5.6	7.0	4.2
AC-FT	298	1,530	7,570	8,500	2,970	5,730	2,580	1,080	554	517	586	397
MEAN†	6.80	27.9	111	138	53.5	93.2	55.6	17.4	9.48	10.2	16.4	5.87
CFSM†	0.99	4.04	16.1	20.0	7.75	13.5	8.06	2.52	1.37	1.48	2.38	0.85
IN.†	1.14	4.51	18.56	23.10	8.87	15.57	9.00	2.91	1.53	1.71	2.74	0.95
AC-FT†	418	1,660	6,830	8,500	2,970	5,730	3,310	1,070	564	628	1,010	349

CAL YR 1970 TOTAL 13,685.7 MEAN 37.5 MAX 291 MIN 1.3 AC-FT 27,150 MEAN† 37.5 CFSM† 5.43 IN.† 73.78 AC-FT† 27,150
WTR YR 1971 TOTAL 16,289.1 MEAN 44.6 MAX 350 MIN 1.4 AC-FT 32,310 MEAN† 45.6 CFSM† 6.61 IN.† 89.75 AC-FT† 33,030

† Adjusted for change in contents in Haskins Creek Reservoir and diversion from McGuire Lake.

14197000 North Yamhill River at Pike, Oreg.

LOCATION.--Lat 45°22'10", long 123°15'15", in NW¼ sec.25, T.2 S., R.5 W., Yamhill County, on right bank 500 ft downstream from Turner Creek, 0.5 mile southeast of Pike, 4.0 miles northwest of Yamhill, and at mile 20.5.

DRAINAGE AREA.--66.8 sq mi.

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 192.66 ft above mean sea level (Corps of Engineers bench mark). Prior to Aug. 21, 1950, water-stage recorder at datum 1.02 ft higher.

AVERAGE DISCHARGE.--23 years, 243 cfs (49.40 inches per year, 176,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,560 cfs Dec. 30 (gage height, 8.85 ft); minimum, 5.0 cfs Oct. 3, 4.

Period of record: Maximum discharge, 9,530 cfs Dec. 21, 1955 (gage height, 12.42 ft), from rating curve extended above 2,600 cfs on basis of a slope-area measurement of peak flow; minimum, 3.4 cfs Aug. 16, 1970.

REMARKS.--Records good. Seasonal regulation by Haskins Creek Reservoir (see station 14195500); occasional diurnal fluctuation caused by Haskins Creek Dam and smaller dams upstream. Water supply for city of McMinnville is diverted from Haskins Creek above station and that for city of Yamhill is diverted from Turner Creek above station. Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	20	341	950	465	321	589	154	76	40	17	67
2	5.6	18	329	684	414	333	508	154	73	36	15	109
3	5.3	18	460	543	372	465	450	152	70	32	15	49
4	5.3	22	365	453	447	426	405	145	67	32	14	30
5	6.2	28	809	393	375	372	378	139	64	33	15	30
6	7.2	39	2,310	351	333	378	360	131	64	34	14	29
7	7.6	38	2,280	321	306	447	336	123	62	29	12	24
8	6.9	95	1,020	333	282	435	414	117	58	29	12	20
9	6.9	76	680	447	306	420	816	113	56	31	11	19
10	7.2	64	708	550	501	1,160	688	107	59	30	9.6	18
11	7.2	290	728	505	405	1,860	636	101	56	31	8.8	17
12	6.9	251	585	426	375	2,040	536	98	54	29	8.4	17
13	6.5	182	501	384	345	1,360	459	101	58	26	8.4	15
14	6.5	130	680	354	396	1,040	393	94	62	24	9.2	15
15	5.9	121	1,210	1,710	487	832	324	96	52	24	9.6	14
16	5.6	174	1,800	2,410	529	664	321	248	49	22	9.2	13
17	5.9	153	1,110	2,370	453	557	312	165	48	21	8.8	12
18	9.9	203	772	1,690	435	480	270	141	56	20	8.4	12
19	11	167	610	1,690	393	435	248	127	52	19	8.4	12
20	24	144	571	1,240	351	402	229	119	49	18	8.8	12
21	47	122	529	981	324	372	214	109	46	17	12	12
22	77	110	447	892	312	444	206	101	42	16	17	12
23	130	150	432	900	288	64	194	96	40	16	16	12
24	85	629	360	1,280	396	628	196	91	42	17	12	12
25	97	421	294	2,860	529	550	196	96	98	16	9.6	15
26	63	356	276	1,990	450	905	189	92	61	15	8.8	16
27	41	502	294	1,210	405	918	186	87	50	14	8.4	16
28	33	369	515	864	360	804	181	79	48	14	8.8	22
29	27	287	672	680	------	792	172	76	45	15	8.4	39
30	24	305	2,640	582	------	836	160	76	42	14	11	26
31	21	------	1,750	522	------	716	------	76	------	17	21	------
TOTAL	798.8	5,484	26,078	30,565	11,034	21,956	10,566	3,604	1,699	731	355.6	716
MEAN	25.8	183	841	986	394	708	352	116	56.6	23.6	11.5	23.9
MAX	130	629	2,640	2,860	529	2,040	816	248	98	40	21	109
MIN	5.3	18	276	321	282	321	160	76	40	14	8.4	12
CFSM	.39	2.74	12.6	14.8	5.90	10.6	5.27	1.74	.85	.35	.17	.36
IN.	.44	3.05	14.52	17.02	6.14	12.23	5.88	2.01	.95	.41	.20	.40
AC-FT	1,580	10,880	51,730	60,630	21,890	43,550	20,960	7,150	3,370	1,450	705	1,420

CAL YR 1970 TOTAL 94,480.1 MEAN 259 MAX 2,640 MIN 4.2 CFSM 3.88 IN 52.61 AC-FT 187,400

WTR YR 1971 TOTAL 113,587.4 MEAN 311 MAX 2,860 MIN 5.3 CFSM 4.66 IN 63.26 AC-FT 225,300

PEAK DISCHARGE (BASE, 2,900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0400	7.42	3,380	1-25	0130	7.45	3,200
12-30	1730	8.85	4,560	3-11	1830	7.69	3,410
1-16	1800	8.11	3,810				

14198000 Willamette River at Wilsonville, Oreg.

LOCATION.--Lat 45°17'57", long 122°45'00", in SE¼NE¼ sec.24, T.3 S., R.1 W., Clackamas County, on left bank, 0.1 mile downstream from Boeckman Creek, 1.1 mile downstream from bridge on Interstate Highway 5 at Wilsonville, and at mile 37.4. Prior to Nov. 3, 1970, at Interstate Highway 5 bridge 1.1 miles upstream.

DRAINAGE AREA.--8,400 sq mi, approximately.

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 1, 1954, nonrecording gage at Butteville, 5.6 miles upstream at same datum. Oct. 1, 1954 to Nov. 2, 1970 at site 1.1 miles upstream at same datum.

AVERAGE DISCHARGE.--23 years, 28,580 cfs (20,710,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 150,000 cfs Jan. 20 (elevation, 76.86 ft); minimum daily, 6,700 cfs Aug. 13.

Period of record: Maximum discharge, 339,000 cfs Dec. 25, 1964 (elevation, 94.74 ft); minimum daily, 3,600 cfs Nov. 29, 30, 1952.

Flood of Dec. 4, 1861 reached a stage of about 105 ft at Wilsonville (discharge not determined).

REMARKS.--Records fair. Flow regulated by 12 reservoirs above station (see elsewhere in this report). Many diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,630	15,000	55,600	93,500	65,500	41,000	56,000	26,000	26,000	15,300	8,000	10,900
2	9,000	15,300	58,000	91,600	61,000	37,800	49,200	25,600	25,500	14,000	8,200	13,500
3	9,300	15,400	59,400	75,600	57,200	38,900	42,500	25,600	25,100	13,000	8,400	17,800
4	9,800	15,000	65,200	58,000	55,200	46,600	37,100	26,100	22,500	13,800	8,200	18,900
5	10,000	13,700	68,300	47,200	58,800	51,700	34,400	27,500	20,800	12,400	8,000	16,000
6	10,200	13,400	70,500	40,500	58,200	49,600	32,600	28,300	19,400	10,600	7,900	15,100
7	10,400	13,600	76,600	34,200	53,400	45,300	31,900	28,000	18,500	10,300	7,600	13,400
8	10,400	14,400	81,800	31,200	49,000	43,400	30,900	27,900	18,300	9,570	7,600	11,400
9	10,600	15,800	79,000	38,700	46,200	42,200	38,400	28,100	19,800	8,810	7,500	11,400
10	10,300	18,800	70,200	54,100	41,500	40,300	63,300	27,700	19,900	8,800	6,880	11,800
11	10,000	21,200	62,000	64,000	46,600	49,900	72,100	26,700	18,600	8,900	6,800	11,900
12	10,000	26,100	56,800	66,500	48,600	73,100	71,800	26,600	18,500	9,070	6,800	12,100
13	9,800	32,600	51,400	66,300	43,700	91,900	64,000	27,900	18,600	8,730	6,700	12,100
14	9,900	32,200	47,400	63,700	41,500	97,300	53,400	30,000	18,900	8,700	7,650	13,000
15	9,800	27,600	48,900	70,400	42,900	90,100	44,600	29,300	19,500	8,600	8,850	12,500
16	9,500	24,400	61,400	105,000	48,500	77,200	39,300	26,000	19,200	8,600	9,200	11,600
17	9,600	25,800	77,800	130,000	50,500	64,200	35,900	25,300	17,500	8,600	9,300	11,600
18	9,600	26,900	82,100	140,000	46,400	54,200	34,200	24,100	16,300	8,800	9,300	11,200
19	9,800	26,500	72,500	144,000	39,600	44,100	33,200	22,000	15,500	9,200	9,300	10,000
20	10,100	27,300	56,400	149,000	36,400	36,400	31,500	21,200	15,800	9,200	9,300	9,000
21	10,500	29,100	46,800	149,000	33,800	32,100	29,600	21,300	15,900	9,000	9,500	8,800
22	11,100	30,000	42,200	139,000	31,800	29,900	28,200	21,400	15,100	8,500	9,500	8,200
23	12,600	29,600	35,900	124,000	31,300	33,400	26,900	20,600	15,800	8,400	9,700	8,200
24	16,800	37,900	31,400	114,000	29,700	46,400	26,400	17,200	16,800	8,400	10,200	8,410
25	20,600	60,300	28,600	116,000	30,900	59,100	27,000	15,700	17,800	8,400	10,400	8,440
26	20,700	68,700	25,000	122,000	36,800	64,000	26,800	18,600	21,800	8,400	10,500	10,600
27	19,400	65,700	22,900	122,000	39,300	68,400	27,100	25,200	26,300	8,400	10,000	12,200
28	17,800	67,900	23,000	114,000	42,000	70,100	28,200	29,600	24,700	8,300	10,500	12,900
29	16,600	65,200	32,000	102,000	-------	66,900	28,100	30,000	20,500	8,200	11,000	13,100
30	15,800	57,500	53,000	87,400	-------	60,900	26,900	29,100	17,500	8,100	12,000	15,100
31	15,400	-------	80,000	72,700	-------	58,300	-------	28,300	-------	8,000	12,300	-------
TOTAL	374,030	932,900	1,722.1M	2,825.6M	1,266.3M	1,704.7M	1,171.5M	786,900	586,400	297,080	277,080	361,150
MEAN	12,070	31,100	55,550	91,150	45,230	54,990	39,050	25,380	19,550	9,583	8,938	12,040
MAX	20,700	68,700	82,100	149,000	65,500	97,300	72,100	30,000	26,300	15,300	12,300	18,900
MIN	8,630	13,400	22,900	31,200	29,700	29,900	26,400	15,700	15,100	8,000	6,700	8,200
AC-FT	741,900	1,850M	3,416M	5,605M	2,512M	3,381M	2,324M	1,561M	1,163M	589,300	549,600	716,300

CAL YR 1970 TOTAL 9,778,130 MEAN 26,790 MAX 150,000 MIN 6,500 AC-FT 19,390,000
WTR YR 1971 TOTAL 12,305,740 MEAN 33,710 MAX 149,000 MIN 6,700 AC-FT 24,410,000

14198500 Molalla River above Pine Creek near Wilhoit, Oreg.

LOCATION.--Lat 45°00'35", long 122°28'45", in NE¼NE¼ sec.31, T.6 S., R.3 E., Clackamas County, on right bank 0.5 mile upstream from Pine Creek, 5 miles southeast of Wilhoit, and at mile 32.5.

DRAINAGE AREA.--97.0 sq mi at gaging cable 0.2 mile downstream.

PERIOD OF RECORD.--October 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is 791.35 ft above mean sea level (Bureau of Public Roads bench mark). Oct. 1, 1935 to Sept. 30, 1945, and Oct. 1, 1945 to Feb. 9, 1961, water-stage recorder at site 0.3 mile downstream at datums 8.42 and 10.44 ft lower, respectively. Feb. 10, 1961, to July 21, 1966, water-stage recorder at site 0.2 mile downstream at datum 5.99 ft lower.

AVERAGE DISCHARGE.--36 years, 543 cfs (76.02 inches per year, 393,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,650 cfs Jan. 19 (gage height, 9.38 ft); minimum, 38 cfs Oct. 3-5.

Period of record: Maximum discharge, 24,300 cfs Dec. 22, 1964 (gage height, 16.3 ft, from floodmark, site and datum then in use), from rating curve extended above 5,200 cfs; minimum, 18 cfs Oct. 3, 1965.

REMARKS.--Records good. No regulation or diversion above station. Records given herein are for measuring site.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	176	602	1,370	1,140	428	903	810	570	292	71	585
2	41	163	525	906	959	414	786	1,080	530	272	72	861
3	38	150	724	680	774	575	708	1,270	485	252	68	585
4	38	141	644	565	684	520	702	1,290	470	234	66	336
5	42	159	1,450	465	575	450	828	1,020	470	222	65	240
6	50	265	2,400	405	505	405	994	822	470	210	63	201
7	48	256	3,420	370	446	500	896	959	485	195	61	165
8	43	450	1,980	1,080	410	630	1,170	1,140	460	185	58	142
9	49	787	1,370	2,830	419	550	2,510	952	423	204	56	127
10	99	686	1,050	2,880	1,700	1,010	2,040	828	405	201	53	116
11	73	1,300	1,140	1,550	1,490	2,060	1,500	882	396	187	51	114
12	62	1,660	871	1,140	1,250	2,640	1,180	1,110	383	172	50	106
13	56	899	710	857	1,240	1,790	1,030	1,140	401	162	49	95
14	51	585	668	698	1,210	1,270	959	889	455	155	49	86
15	47	475	952	3,160	1,900	1,040	931	810	396	150	48	80
16	45	976	1,540	5,180	1,360	816	828	917	356	147	46	76
17	44	815	1,120	5,070	1,020	684	768	726	324	138	44	69
18	68	738	808	4,490	822	580	726	642	356	133	44	66
19	96	864	626	7,190	696	530	660	624	405	129	42	65
20	141	871	550	3,650	595	515	660	612	369	120	41	62
21	259	738	470	1,980	540	500	624	555	348	114	44	61
22	312	565	400	1,400	530	1,000	580	550	352	108	93	57
23	1,270	1,000	358	1,300	520	1,560	580	624	356	100	63	57
24	920	5,660	326	1,310	804	1,840	565	702	317	95	51	54
25	608	2,850	301	1,450	822	1,370	590	738	1,140	91	46	79
26	435	1,620	280	1,340	654	1,530	696	896	750	87	43	120
27	322	1,360	274	1,070	565	1,260	780	816	535	86	41	96
28	262	992	440	910	490	1,050	726	786	437	82	41	182
29	226	745	738	798	------	1,090	678	714	360	80	40	441
30	209	674	2,350	959	------	1,340	666	612	313	72	40	296
31	193	------	2,640	1,220	------	1,110	------	535	------	71	106	------
TOTAL	6,190	28,620	31,727	58,273	24,120	31,057	27,264	26,051	13,517	4,746	1,705	5,620
MEAN	200	954	1,023	1,880	861	1,002	909	840	451	153	55.0	187
MAX	1,270	5,660	3,420	7,190	1,900	2,640	2,510	1,290	1,140	292	106	861
MIN	38	141	274	370	410	405	565	535	313	71	40	54
CFSM	2.06	9.84	10.5	19.4	8.88	10.3	9.37	8.66	4.65	1.58	.57	1.93
IN.	2.37	10.98	12.17	22.35	9.25	11.91	10.46	9.99	5.18	1.82	.65	2.16
AC-FT	12,280	56,770	62,930	115,600	47,840	61,600	54,080	51,670	26,810	9,410	3,380	11,150

CAL YR 1970 TOTAL 214,289 MEAN 587 MAX 6,080 MIN 25 CFSM 6.05 IN 82.18 AC-FT 425,000
WTR YR 1971 TOTAL 258,890 MEAN 709 MAX 7,190 MIN 38 CFSM 7.31 IN 99.29 AC-FT 513,500

PEAK DISCHARGE (BASE, 3,600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0530	8.30	7,120	1-10	0200	6.5	3,820
12- 7	0730	6.82	4,330	1-17	0030	8.14	6,780
12-30	2000	7.3	5,160	1-19	1130	9.38	9,650

14200000 Molalla River near Canby, Oreg.

LOCATION.--Lat 45°14'40", long 122°41'10", in NW¼NE¼ sec.9, T.4 S., R.1 E., Clackamas County, on left bank at upstream side of Goods bridge, 1.5 miles south of Canby, and at mile 6.01.

DRAINAGE AREA.--323 sq mi.

PERIOD OF RECORD.--August 1928 to September 1959, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 104.00 ft above mean sea level. Prior to Oct. 24, 1933, nonrecording gage and Oct. 24, 1933, to Sept. 26, 1955, water-stage recorder at present site and at datum 1.00 ft higher. Sept. 27, 1955, to June 3, 1956, water-stage recorder at site 145 ft downstream at present datum. June 4, 1956, to Sept. 30, 1959, water-stage recorder at site 0.3 mile downstream at datum 1.98 ft lower. Oct. 1, 1963, to May 4, 1964, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 1,153 cfs (48.48 inches per year, 835,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,900 cfs Jan. 19 (gage height, 12.23 ft); minimum daily discharge, 75 cfs Oct. 3, 4.
Period of record: Maximum discharge, 43,600 cfs Dec. 22, 1964 (gage height, 16.76 ft); minimum, 20 cfs Aug. 27, 1959.

REMARKS.--Records good. No regulation. Numerous small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1248: 1929-30, 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	338	1,970	3,660	2,370	1,210	1,930	1,520	1,230	599	134	350
2	80	311	1,810	2,470	2,050	1,120	1,680	1,900	1,180	547	130	1,400
3	75	291	2,400	1,860	1,710	1,680	1,480	2,210	1,060	496	120	1,100
4	75	279	2,710	1,480	1,540	1,830	1,390	2,330	968	457	115	550
5	80	275	3,120	1,240	1,360	1,580	1,500	1,920	929	434	115	400
6	90	435	5,320	1,060	1,180	1,410	1,770	1,570	894	411	112	320
7	100	460	7,180	944	1,060	1,670	1,650	1,640	919	372	108	280
8	96	582	5,100	1,880	968	2,020	1,670	2,050	877	346	105	230
9	91	1,210	3,460	6,320	936	1,750	5,780	1,760	791	357	101	200
10	151	1,450	2,630	6,750	2,690	2,360	6,050	1,530	760	379	94	181
11	170	1,880	2,740	4,640	2,920	4,350	4,590	1,490	743	347	91	190
12	139	3,270	2,230	3,270	2,300	6,230	3,680	1,840	700	320	90	192
13	123	2,080	1,890	2,460	2,320	4,940	3,010	2,010	739	293	88	171
14	110	1,410	1,710	2,010	2,140	3,910	2,570	1,610	911	273	91	158
15	102	1,070	2,070	5,820	3,460	3,2[illegible]	2,340	1,400	804	261	91	149
16	97	1,650	4,310	9,860	2,840	2,490	2,040	1,540	721	249	86	139
17	97	1,660	3,480	9,980	2,230	1,980	1,870	1,300	652	238	81	123
18	110	1,470	2,490	8,550	1,870	1,660	1,710	1,130	656	224	80	114
19	154	1,770	1,900	14,100	1,670	1,460	1,510	1,080	758	211	79	113
20	173	1,830	1,630	11,200	1,440	1,350	1,490	1,100	674	199	79	115
21	360	1,630	1,430	5,820	1,330	1,250	1,520	1,010	623	188	82	114
22	624	1,280	1,180	4,080	1,300	1,700	1,390	963	603	176	129	114
23	1,430	1,360	1,020	3,910	1,320	3,110	1,370	1,040	608	169	170	114
24	1,680	8,830	904	3,860	1,550	4,000	1,360	1,150	560	165	133	116
25	1,220	7,830	819	4,240	1,930	3,140	1,410	1,200	1,810	156	114	125
26	904	4,440	756	3,750	1,670	3,300	1,560	1,610	1,660	149	106	214
27	672	4,040	742	2,960	1,590	2,820	1,660	1,560	1,190	143	101	197
28	540	3,140	896	2,440	1,400	2,260	1,560	1,440	971	139	102	188
29	460	2,360	2,120	2,090	------	2,220	1,430	1,300	807	139	100	559
30	420	2,050	3,550	2,090	------	2,610	1,370	1,210	685	134	96	512
31	375	------	6,880	2,550	------	2,370	------	1,050	------	134	130	------
TOTAL	10,878	60,681	80,447	137,344	51,144	77,030	64,340	46,463	26,483	8,705	3,253	8,728
MEAN	351	2,023	2,595	4,430	1,827	2,485	2,145	1,499	883	281	105	291
MAX	1,680	8,830	7,180	14,100	3,460	6,230	6,050	2,330	1,810	599	170	1,400
MIN	75	275	742	944	936	1,120	1,360	963	560	134	79	113
CFSM	1.09	6.26	8.03	13.7	5.66	7.69	6.64	4.64	2.73	.87	.33	.90
IN.	1.25	6.99	9.27	15.82	5.89	8.87	7.41	5.35	3.05	1.00	.37	1.01
AC-FT	21,580	120,400	159,600	272,400	101,400	152,800	127,600	92,160	52,530	17,270	6,450	17,310

CAL YR 1970 TOTAL 488,236 MEAN 1,338 MAX 13,700 MIN 40 CFSM 4.14 IN 56.23 AC-FT 968,400
WTR YR 1971 TOTAL 575,496 MEAN 1,577 MAX 14,100 MIN 75 CFSM 4.88 IN 66.28 AC-FT 1,141,000

PEAK DISCHARGE (BASE, 7,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1000	9.52	11,100	1-17	0230	9.80	11,900
12- 7	1200	8.54	8,750	1-19	1800	12.23	20,900
12-31	0200	8.97	9,480	4- 9	2100	8.27	7,680
1-10	0430	8.27	7,680				

14200300 Silver Creek at Silverton, Oreg.

LOCATION.--Lat 45°00'34", long 122°47'15", in NE¼ sec.34, T.6 S., R.1 W., on right bank 300 ft downstream from railroad bridge in Silverton, 2.5 miles upstream from Brush Creek, and at mile 3.4.

DRAINAGE AREA.--47.9 sq mi.

PERIOD OF RECORD.--October 1963 to September 1968, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 218.5 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 196 cfs (55.57 inches per year, 142,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,170 cfs Jan. 19 (gage height, 8.09 ft); minimum, 7.2 cfs Aug. 18.
Period of record: Maximum discharge, 5,900 cfs Dec. 22, 1964 (gage height, 11.15 ft); minimum, 2.0 cfs Aug. 20, 21, 1967.

REMARKS.--Records good. No regulation. Several small diversions for irrigation and municipal use above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	38	422	700	324	256	335	188	122	102	22	120
2	8.0	35	394	500	292	232	298	190	100	91	19	247
3	8.0	32	562	400	256	359	262	200	91	82	18	226
4	8.0	30	502	340	310	394	235	200	87	76	17	113
5	8.5	33	542	280	271	338	226	178	81	72	18	78
6	10	60	614	253	232	292	226	160	75	68	20	88
7	12	60	722	232	208	328	218	160	75	61	16	63
8	12	80	626	429	190	377	283	168	73	58	15	53
9	17	140	502	1,130	195	342	840	145	67	67	13	46
10	15	139	440	1,260	450	363	808	132	73	65	12	40
11	14	244	422	860	405	668	731	130	73	58	11	49
12	12	370	345	638	342	1,020	614	141	63	52	10	43
13	11	238	304	514	310	1,070	522	163	79	47	9.8	36
14	10	175	335	447	342	826	447	135	90	44	11	33
15	9.0	155	436	915	486	727	405	132	72	39	11	31
16	8.5	232	727	1,230	454	586	366	178	64	36	9.8	28
17	9.0	170	594	1,320	380	478	363	139	59	34	9.8	27
18	13	165	460	1,200	363	394	307	120	84	33	9.2	23
19	23	170	380	2,230	331	321	271	113	90	31	8.6	22
20	35	180	300	1,500	286	271	292	109	72	29	8.6	22
21	50	175	260	940	259	238	280	102	65	27	11	22
22	90	155	220	745	280	408	253	98	60	25	36	20
23	200	205	200	850	286	490	247	98	59	25	26	20
24	170	1,060	180	776	352	486	247	95	60	24	17	20
25	140	826	160	1,190	398	443	235	97	370	23	15	35
26	110	614	150	955	352	447	223	175	235	22	12	55
27	80	704	150	700	338	398	220	132	180	21	11	38
28	65	550	190	562	292	370	210	115	155	20	12	59
29	55	429	350	470	------	345	198	100	132	20	12	193
30	48	433	800	405	------	419	190	91	115	20	12	120
31	42	------	1,100	359	------	387	------	88	------	22	36	------
TOTAL	1,301.5	7,897	13,389	24,330	8,984	14,073	10,352	4,272	3,021	1,394	468.8	1,970
MEAN	42.0	263	432	785	321	454	345	138	101	45.0	15.1	65.7
MAX	200	1,060	1,100	2,230	486	1,070	840	200	370	102	36	247
MIN	8.0	30	150	232	190	232	190	88	59	20	8.6	20
CFSM	.88	5.49	9.02	16.4	6.70	9.48	7.20	2.88	2.11	.94	.32	1.37
IN.	1.01	6.13	10.40	18.90	6.98	10.93	8.04	3.32	2.35	1.08	.36	1.53
AC-FT	2,580	15,660	26,560	48,260	17,820	27,910	20,530	8,470	5,990	2,770	930	3,910

WTR YR 1971 TOTAL 91,452.3 MEAN 251 MAX 2,230 MIN 8.0 CFSM 5.24 IN 71.02 AC-FT 181,400

PEAK DISCHARGE (BASE, 1,200 CFS)

NOTE.--No gage-height record Oct. 1 to Nov. 9.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0700	5.09	1,290	1-19	1030	8.09	3,170
12-30	2100	5.5	1,500	1-25	1830	5.03	1,260
1- 9	2200	5.65	1,610	3-12	1900	5.21	1,360
1-16	2200	5.49	1,510				

14201500 Butte Creek at Monitor, Oreg.

LOCATION.--Lat 45°06'06", long 122°44'42", in SE¼SE¼ sec.25, T.5 S., R.1 W., Marion County, on left bank at downstream side of highway bridge at Monitor and at mile 7.7.

DRAINAGE AREA.--58.7 sq mi.

PERIOD OF RECORD.--January to December 1936, October 1940 to September 1952, October 1966 to current year. Monthly discharge only for January to December 1936, published in WSP 1318.

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (from topographic map). Jan. 20 to Oct. 22, 1936, nonrecording gage at present site at different datum. Oct. 23 to Dec. 19, 1936, nonrecording gage at site 70 ft downstream at different datum. Oct. 1, 1940, to Sept. 30, 1952, nonrecording gage at present site at datum 151.35 ft above mean sea level.

AVERAGE DISCHARGE.--17 years (1940-52, 1966-71) 225 cfs (52.05 inches per year, 163,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,420 cfs Jan. 19 (gage height, 10.07 ft); minimum, 5.6 cfs Aug. 14.
Period of record: Maximum discharge, 5,600 cfs Feb. 17, 1949 (gage height, 13.5 ft, from graph based on gage readings, datum then in use); minimum, 0.15 cfs Aug. 25, 1967.

REMARKS.--Records good. No regulation. Diversions for irrigation by pumping above station.

REVISIONS.--WRD Oreg. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	44	373	772	352	245	361	231	165	86	17	83
2	7.3	40	330	568	330	255	320	248	149	78	15	186
3	7.1	36	496	449	295	406	290	278	142	72	15	136
4	6.9	34	406	373	295	394	263	288	139	67	14	76
5	7.3	37	488	323	263	335	260	243	141	60	14	57
6	9.1	70	728	283	233	320	273	212	134	55	15	56
7	11	66	970	255	212	367	263	238	139	51	14	45
8	10	90	705	410	190	388	358	263	128	46	13	38
9	16	158	514	788	186	338	1,200	225	121	51	12	33
10	13	161	421	1,050	367	471	1,020	208	115	52	10	30
11	13	252	425	857	385	840	840	208	102	47	8.2	31
12	11	361	346	661	323	1,290	666	240	89	44	7.2	30
13	9.4	231	304	537	313	980	527	255	99	41	6.5	26
14	8.8	170	310	473	349	785	448	216	119	36	7.7	24
15	7.8	140	446	1,550	566	646	403	216	95	32	9.7	23
16	7.3	239	948	1,990	523	499	352	250	86	28	9.7	22
17	7.4	203	653	1,780	415	400	333	192	78	26	10	19
18	10	194	461	1,400	361	335	298	174	88	25	9.4	18
19	22	201	359	2,410	318	295	265	165	99	24	8.9	17
20	29	203	324	1,660	273	270	273	164	84	22	9.4	17
21	68	191	277	980	263	250	278	152	75	20	11	17
22	101	165	231	722	260	320	255	158	70	19	22	16
23	236	210	206	682	253	464	248	169	69	17	22	16
24	211	1,200	186	666	303	562	243	178	65	18	15	15
25	149	853	170	905	343	478	242	182	335	17	13	20
26	117	552	158	758	328	527	240	273	229	17	12	32
27	90	565	158	606	315	454	250	229	160	14	12	26
28	73	432	245	492	280	397	238	212	136	13	13	27
29	61	333	499	421	------	385	227	188	113	14	13	76
30	53	334	977	385	------	451	222	165	97	13	12	60
31	48	------	1,330	373	------	427	------	150	------	15	21	------
TOTAL	1,427.9	7,765	14,444	25,579	8,894	14,574	11,456	6,570	3,661	1,120	391.7	1,272
MEAN	46.1	259	466	825	318	470	382	212	122	36.1	12.6	42.4
MAX	236	1,200	1,330	2,410	566	1,290	1,200	288	335	86	22	186
MIN	6.9	34	158	255	186	245	222	150	65	13	6.5	15
CFSM	.79	4.41	7.94	14.1	5.42	8.01	6.51	3.61	2.08	.62	.21	.72
IN.	.90	4.92	9.15	16.21	5.64	9.24	7.26	4.16	2.32	.71	.25	.81
AC-FT	2,830	15,400	28,650	50,740	17,640	28,910	22,720	13,030	7,260	2,220	777	2,520

CAL YR 1970 TOTAL 80,633.1 MEAN 221 MAX 2,600 MIN 1.2 CFSM 3.76 IN 51.10 AC-FT 159,900
WTR YR 1971 TOTAL 97,154.6 MEAN 266 MAX 2,410 MIN 6.5 CFSM 4.53 IN 61.57 AC-FT 192,700

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-30	2200	8.55	2,160	3-12	0330	7.72	1,530
1-16	0030	8.53	2,220	4- 9	1700	7.82	1,590
1-19	1400	10.07	3,420				

14203000 Scoggins Creek near Gaston, Oreg.

LOCATION.--Lat 45°27'32", long 123°09'16", on line between secs. 26 and 27, T.1 S., R.4 W., Washington County, on left bank 100 ft upstream from bridge on State Highway 47, 1.7 miles northwest of Gaston, and at mile 1.71.

DRAINAGE AREA.--43.3 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1963, published as Scoggin Creek near Gaston.

GAGE.--Water-stage recorder. Datum of gage is 168.92 ft above mean sea level. Prior to Oct. 1, 1947, water-stage recorder at site 300 ft upstream at same datum. Oct. 1, 1947, to June 7, 1950, nonrecording gage at site 150 ft upstream at same datum.

AVERAGE DISCHARGE.--31 years, 141 cfs (44.22 inches per year, 102,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,940 cfs Dec. 30 (gage height, 12.72 ft); minimum, 0.29 cfs Aug. 26.
Period of record: Maximum discharge, 5,320 cfs Dec. 21, 1955 (gage height, 15.94 ft); minimum, 0.10 cfs Aug. 28, Sept. 30, Oct. 1, 3, 1958, Aug. 23, 24, 1961.

REMARKS.--Records good above 10 cfs and fair below. Some diurnal fluctuation caused by logponds above station. Diversions by pumping for irrigation above station. Part of domestic water supply for Hillsboro is diverted from Sain Creek above station.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	5.8	140	688	300	193	385	95	36	19	8.6	31
2	2.2	5.0	132	481	272	190	310	91	35	16	7.4	54
3	2.0	6.9	181	344	246	228	272	89	36	15	5.5	22
4	1.6	8.5	143	272	258	236	250	86	34	15	5.3	14
5	1.8	12	215	239	231	215	236	82	32	16	5.9	13
6	2.3	17	1,060	215	212	212	223	77	32	19	5.3	16
7	1.9	17	1,320	196	196	236	210	73	32	19	5.0	13
8	2.0	40	767	193	181	248	231	67	28	16	4.8	9.7
9	2.2	31	462	223	184	244	396	64	27	21	4.0	8.1
10	2.4	19	464	300	308	591	465	57	27	21	3.2	7.7
11	2.1	122	568	290	272	1,050	414	54	24	22	2.8	7.7
12	1.9	110	412	248	246	1,350	328	54	26	19	2.0	8.1
13	3.0	58	294	228	228	948	280	55	27	17	2.0	6.3
14	3.4	40	302	210	236	748	256	52	31	15	2.6	5.8
15	3.4	34	588	744	272	608	236	51	26	13	3.1	5.0
16	3.8	49	1,160	1,210	292	498	226	110	23	10	3.5	4.5
17	2.9	44	809	1,570	258	400	226	81	22	9.7	2.7	3.5
18	8.5	51	533	1,170	252	320	201	72	27	10	2.5	3.0
19	18	46	384	1,110	236	280	187	63	27	9.7	.77	3.0
20	25	40	322	840	212	258	172	61	23	9.3	2.0	3.4
21	31	35	270	658	201	241	158	54	20	8.5	2.7	3.7
22	41	30	228	562	193	276	152	51	17	7.7	4.6	3.4
23	87	36	204	524	178	378	140	49	20	6.9	4.5	3.7
24	54	316	187	619	218	464	129	46	22	7.7	3.2	4.3
25	36	226	168	1,590	264	366	124	49	56	7.7	.80	5.5
26	22	143	159	1,430	250	557	120	49	33	6.5	.37	7.3
27	15	210	162	869	234	582	116	45	29	5.8	2.0	10
28	11	165	252	611	212	521	110	40	27	5.5	2.6	14
29	8.1	122	422	489	------	529	104	36	26	2.0	2.9	37
30	7.3	117	1,230	400	------	557	99	36	23	1.5	2.8	32
31	6.5	------	1,310	344	------	489	------	39	------	7.9	6.2	------
TOTAL	411.5	2,156.2	14,848	18,867	6,642	14,013	6,756	1,928	848	379.4	111.64	359.7
MEAN	13.3	71.9	479	609	237	452	225	62.2	28.3	12.2	3.60	12.0
MAX	87	316	1,320	1,590	308	1,350	465	110	56	22	8.6	54
MIN	1.6	5.0	132	193	178	190	99	36	17	1.5	.37	3.0
CFSM	.31	1.66	11.1	14.1	5.47	10.4	5.20	1.44	.65	.28	.08	.28
IN.	.35	1.85	12.76	16.21	5.71	12.04	5.80	1.66	.73	.33	.10	.31
AC-FT	816	4,280	29,450	37,420	13,170	27,790	13,400	3,820	1,680	753	221	713

CAL YR 1970 TOTAL 55,897.25 MEAN 153 MAX 1,320 MIN .67 CFSM 3.53 IN 48.02 AC-FT 110,900
WTR YR 1971 TOTAL 67,320.44 MEAN 184 MAX 1,590 MIN .37 CFSM 4.25 IN 57.84 AC-FT 133,500

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	1130	11.27	1,480	1-17	0400	12.06	1,720
12-16	0830	10.01	1,230	1-25	2230	12.19	1,760
12-30	2330	12.72	1,940	3-12	0130	11.63	1,590

14203500 Tualatin River near Dilley, Oreg.

LOCATION.--Lat 45°28'30", long 123°07'23", in NE¼NW¼ sec.24, T.1 S., R.4 W., Washington County, on left bank 5 ft upstream from highway bridge, 1.0 mile south of Dilley, 1.2 miles downstream from Scoggins Creek, and at mile 58.81.

DRAINAGE AREA.--125 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1940 monthly discharge only published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 147.57 ft above mean sea level. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft of present site at datum 4.00 ft higher. June 16, 1950 to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft higher.

AVERAGE DISCHARGE.--32 years, 402 cfs (43.67 inches per year, 291,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,440 cfs Jan. 17 (gage height, 17.91 ft); minimum, 4.9 cfs Aug. 14.
Period of record: Maximum discharge, 17,100 cfs Dec. 22, 1964 (gage height, 19.34 ft), from rating curve extended above 6,000 cfs; minimum, 0.08 cfs Sept. 3, 1967.

REMARKS.--Records good except those for periods of shifting control, which are fair. Diurnal fluctuation caused by dam below Gaston. Diversions above station for municipal water supply and irrigation in Wapato Lane area.

REVISIONS.--WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	23	419	2,330	1,030	564	1,220	271	101	51	23	71
2	8.0	19	420	1,560	862	516	1,080	260	100	49	20	144
3	7.5	19	486	1,200	724	664	950	254	100	47	18	75
4	6.0	19	516	930	740	808	830	248	90	46	18	44
5	6.5	26	484	713	683	736	739	236	84	46	18	37
6	8.5	39	2,210	578	589	671	679	216	75	49	23	43
7	7.0	42	3,390	501	533	760	615	203	78	47	23	36
8	7.5	135	2,450	491	494	826	617	191	73	41	21	31
9	8.0	140	1,540	673	476	755	1,120	179	71	45	20	27
10	8.5	87	1,270	1,020	880	1,200	1,440	167	73	47	14	24
11	7.5	267	1,580	1,110	995	2,500	1,320	150	69	50	10	27
12	6.5	435	1,280	910	812	3,320	1,190	135	70	50	8.8	25
13	7.0	248	985	761	691	2,650	1,020	135	71	44	7.5	22
14	7.9	149	844	665	646	2,070	854	137	81	40	5.7	21
15	8.3	105	1,370	1,880	820	1,730	733	140	71	34	7.3	19
16	9.4	147	2,700	3,600	1,010	1,440	656	300	65	26	11	18
17	8.8	180	2,480	4,300	900	1,230	640	284	61	24	11	17
18	12	188	1,670	3,420	788	1,070	575	240	69	26	12	16
19	17	208	1,260	3,080	749	928	518	206	73	24	9.1	16
20	28	165	1,040	2,650	640	806	482	189	68	21	10	15
21	49	137	928	2,020	579	712	449	172	59	21	13	15
22	87	114	719	1,680	547	731	425	156	51	20	19	15
23	202	112	589	1,580	514	1,020	407	140	52	18	19	15
24	148	646	518	1,600	552	1,260	377	129	48	19	16	16
25	121	733	462	3,390	782	1,170	356	133	122	20	13	17
26	85	484	432	3,910	800	1,320	350	136	91	21	12	20
27	58	530	426	2,750	770	1,520	342	126	74	17	13	22
28	43	511	538	1,930	679	1,400	328	109	66	17	14	24
29	33	385	1,100	1,500	------	1,410	303	98	63	14	15	63
30	29	335	2,280	1,260	------	1,490	284	97	58	12	15	74
31	26	------	3,910	1,160	------	1,420	------	102	------	17	23	------
TOTAL	1,069.4	6,628	40,296	55,152	20,285	38,697	20,899	5,539	2,227	1,003	462.4	1,009
MEAN	34.5	221	1,300	1,779	724	1,248	697	179	74.2	32.4	14.9	33.6
MAX	202	733	3,910	4,300	1,030	3,320	1,440	300	122	51	23	144
MIN	6.0	19	419	491	476	516	284	97	48	12	5.7	15
CFSM	.28	1.77	10.4	14.2	5.79	9.98	5.58	1.43	.59	.26	.12	.27
IN.	.32	1.97	11.99	16.41	6.04	11.52	6.22	1.65	.66	.30	.14	.30
AC-FT	2,120	13,150	79,930	109,400	40,240	76,760	41,450	10,990	4,420	1,990	917	2,000

CAL YR 1970 TOTAL 158,148.53 MEAN 433 MAX 3,910 MIN .39 CFSM 3.46 IN 47.07 AC-FT 313,700
WTR YR 1971 TOTAL 193,266.80 MEAN 529 MAX 4,300 MIN 5.7 CFSM 4.23 IN 57.52 AC-FT 383,300

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0430	17.88	4,330	1-26	0400	17.85	4,220
1-17	0730	17.91	4,440				

NOTE.--Shifting-control method used Oct. 1 to Nov. 15, Apr. 10 to May 16, Sept. 1-30.

14204500 Gales Creek near Forest Grove, Oreg.

LOCATION.--Lat 45°33'20", long 123°11'10", in SE¼ sec.21, T.1 N., R.4 W., Washington County, on left bank approximately 50 ft downstream from Roderick road bridge, 0.1 mile below Kelly Creek, 2.5 miles southeast of town of Gales Creek, 4.5 miles northwest of Forest Grove and at mile 8.7.

DRAINAGE AREA.--66.1 sq mi.

PERIOD OF RECORD.--October 1940 to September 1956, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 201.81 ft above mean sea level. Prior to Sept. 13, 1941, at site 1.4 miles downstream at datum 14.33 ft lower. Sept. 13, 1941, to June 19, 1952, at downstream side of bridge at datum 1.44 ft higher. June 19, 1952, to Jan. 3, 1956, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--17 years, 234 cfs (48.07 inches per year, 169,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,820 cfs Dec. 30 (gage height, 9.89 ft); minimum, 5.5 cfs Oct. 4.
Period of record: Maximum discharge, 6,410 cfs Feb. 17, 1949 (gage height, 10.90 ft, from floodmark, site and datum then in use); maximum gage height, 11.86 ft Dec. 21, 1955; minimum discharge, 1 cfs Aug. 19, 1947; minimum daily, 3.7 cfs Sept. 22, 1952.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	14	322	1,070	462	279	629	142	68	39	14	56
2	6.0	14	301	740	410	284	544	137	68	36	12	71
3	5.8	14	454	578	360	402	468	134	65	34	11	33
4	5.8	16	355	472	392	413	411	131	61	32	11	22
5	6.4	20	536	393	333	366	372	128	56	34	14	22
6	7.1	27	2,030	340	299	355	344	121	55	35	14	24
7	7.4	28	2,230	300	271	410	314	117	55	34	13	19
8	7.4	80	1,160	299	251	420	356	111	52	31	11	16
9	7.4	71	715	331	249	413	560	106	50	40	11	14
10	7.4	52	685	457	358	1,100	600	102	52	38	9.6	14
11	7.8	228	723	440	330	1,820	549	96	50	38	8.4	13
12	7.8	187	575	381	310	2,180	483	93	49	36	6.6	13
13	7.8	124	466	347	289	1,510	428	97	52	31	6.0	13
14	7.4	90	539	317	321	1,180	378	92	58	27	7.8	11
15	7.0	78	967	1,220	426	963	338	93	49	25	8.4	11
16	7.0	115	1,980	1,960	494	761	324	185	46	22	9.0	9.0
17	7.4	100	1,340	2,300	448	628	324	140	43	19	8.4	7.8
18	9.2	110	830	1,900	431	542	281	125	48	19	8.4	7.2
19	10	101	606	1,750	392	482	256	113	48	17	7.8	7.2
20	14	91	531	1,300	348	436	241	106	45	16	9.0	7.2
21	23	84	446	1,000	321	395	223	100	43	14	10	7.2
22	54	75	363	930	301	465	215	91	38	14	14	7.2
23	125	110	312	900	274	595	197	85	37	14	14	7.2
24	89	671	273	1,000	322	675	186	80	41	14	11	7.2
25	65	532	249	2,340	394	596	178	83	90	13	8.4	9.0
26	38	379	232	2,000	374	840	171	84	56	14	7.2	11
27	27	490	237	1,250	356	888	165	79	55	12	6.6	14
28	22	385	428	895	318	834	159	71	50	12	7.8	26
29	20	274	623	692	------	877	152	67	48	11	7.8	45
30	18	272	2,370	584	------	914	146	68	42	11	9.0	33
31	16	------	2,040	518	------	760	------	68	------	14	20	------
TOTAL	649.8	4,832	24,918	29,004	9,834	22,783	9,992	3,245	1,570	746	316.2	557.2
MEAN	21.0	161	804	936	351	735	333	105	52.3	24.1	10.2	18.6
MAX	125	671	2,370	2,340	494	2,180	629	185	90	40	20	71
MIN	5.8	14	232	299	249	279	146	67	37	11	6.0	7.2
CFSM	.32	2.44	12.2	14.2	5.31	11.1	5.04	1.59	.79	.36	.15	.28
IN.	.37	2.72	14.02	16.32	5.53	12.82	5.62	1.83	.88	.42	.18	.31
AC-FT	1,290	9,580	49,420	57,530	19,510	45,190	19,820	6,440	3,110	1,480	627	1,110

WTR YR 1971 TOTAL 108,447.2 MEAN 297 MAX 2,370 MIN 5.8 CFSM 4.49 IN 61.03 AC-FT 215,100

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0630	8.23	2,670	1-17	0200	8.34	2,740
12-16	1530	7.22	2,060	1-25	2000	8.0	2,530
12-30	1900	9.89	3,820	3-11	2400	7.98	2,520

14207000 Oswego Canal near Lake Oswego, Oreg.

LOCATION.--Lat 45°23'20", long 122°43'10", in NW¼NW¼ sec.20, T.2 S., R.1 E., Clackamas County, on left bank 0.4 mile downstream from point of diversion on Tualatin River, 1 mile upstream from Oswego Lake, and 3.5 miles southwest of Oswego.

PERIOD OF RECORD.--October 1928 to current year. October 1951 to September 1970, Oswego Canal records were not published separately but were combined with records for Tualatin River at West Linn.

GAGE.--Water-stage recorder. Datum of gage is 96.50 ft above mean sea level. Prior to Nov. 15, 1928, nonrecording gage 800 ft upstream at different datum. Nov. 15, 1928 to June 29, 1939, nonrecording gage 900 ft downstream at datum about 1.0 ft higher.

AVERAGE DISCHARGE.--43 years, 71.6 cfs (51,870 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 6,000 cfs Dec. 23, 1933; no flow at times.

REMARKS.--Records excellent. Oswego Canal diverts water from Tualatin River in NW¼ sec.20, but diversion dam is in NE¼ sec.33, about 3 miles downstream. Water used for recreational facilities and development of power below Oswego Lake and returned to Willamette River at that point.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	10	21	172	178	121	134	68	43	66	34	43
2	49	9.7	20	181	167	118	135	66	43	63	35	59
3	36	12	22	189	156	118	133	64	43	61	38	72
4	12	22	22	191	146	121	129	63	43	59	41	80
5	12	35	23	187	135	122	124	61	42	56	42	77
6	37	37	23	178	125	123	118	60	42	54	43	72
7	55	39	54	168	117	127	112	58	41	54	40	68
8	52	44	138	159	109	128	107	57	40	53	40	67
9	51	50	145	149	101	127	117	56	46	52	42	65
10	51	44	156	140	97	130	135	55	62	50	43	63
11	47	31	162	137	98	141	137	53	65	52	41	61
12	35	64	162	135	101	160	136	52	68	53	41	59
13	31	73	160	134	101	173	134	52	69	54	39	56
14	35	60	158	134	100	188	132	50	68	52	37	54
15	35	53	157	171	103	205	128	50	68	49	36	55
16	35	35	166	192	108	213	124	49	69	43	35	55
17	34	16	168	194	110	207	119	52	67	40	27	55
18	37	17	168	204	111	197	113	58	66	39	23	55
19	40	16	172	228	111	186	107	56	66	37	21	54
20	43	16	176	241	109	175	99	54	69	35	23	51
21	46	16	177	241	107	165	93	52	71	34	24	51
22	54	16	172	231	104	155	89	50	69	38	27	52
23	60	16	166	217	102	146	85	49	62	38	31	50
24	43	19	157	204	101	136	82	47	61	37	37	50
25	48	19	146	203	104	129	79	47	67	36	42	52
26	45	20	136	194	113	127	76	47	71	36	45	57
27	40	21	125	191	122	126	75	48	77	37	44	62
28	35	20	118	198	123	128	73	48	76	37	42	60
29	24	19	124	201	-------	130	71	46	71	37	38	52
30	10	19	150	196	-------	133	70	44	68	35	35	52
31	10	-------	174	188	-------	134	-------	43	-------	35	34	-------
TOTAL	1,193	868.7	3,918	5,748	3,259	4,589	3,266	1,655	1,813	1,422	1,120	1,759
MEAN	38.5	29.0	126	185	116	148	109	53.4	60.4	45.9	36.1	58.6
MAX	60	73	177	241	178	213	137	68	77	66	45	80
MIN	10	9.7	20	134	97	118	70	43	40	34	21	43
AC-FT	2,370	1,720	7,770	11,400	6,460	9,100	6,480	3,280	3,600	2,820	2,220	3,490

CAL YR 1970 TOTAL 23,729.7 MEAN 65.0 MAX 270 MIN 9.7 AC-FT 47,070
WTR YR 1971 TOTAL 30,610.7 MEAN 83.9 MAX 241 MIN 9.7 AC-FT 60,720

14207500 Tualatin River at West Linn, Oreg.

LOCATION.--Lat 45°21'03", long 122°40'30", in SW¼ sec.34, T.2 S., R.1 E., Clackamas County, on left bank 300 ft upstream from bridge on State Highway 212, 0.4 mile west of West Linn city limits, and at mile 1.8.

DRAINAGE AREA.--706 sq mi.

PERIOD OF RECORD.--July 1928 to current year. Prior to October 1960, published as "near Willamette."

GAGE.--Water-stage recorder. Datum of gage is 85.61 ft above mean sea level (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft higher.

AVERAGE DISCHARGE.--43 years, 1,521 cfs (29.26 inches per year, 1,102,000 acre-ft per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 11,500 cfs Jan. 20; minimum, 4.8 cfs Aug. 15-16.
Period of record: Maximum discharge, 23,300 cfs (river only) Dec. 23, 1933; minimum daily, 0.20 cfs July 30 to Aug. 2, 1966.

REMARKS.--Records excellent except those below 30 cfs, which are poor. October 1951 to September 1970, all records published for this station included the daily flow of Oswego Canal. Oswego Canal diverts at point 5.0 miles above station for development of power between outlet of Lake Oswego and Willamette River. Some regulation in low-water season by flashboards on crest of diversion dam for Oswego Canal. Several diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1014: 1943. WSP 1184: 1947: WSP 1248: 1941. WRD Oreg. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	151	1,860	6,010	6,770	3,480	4,230	1,000	364	308	21	28
2	40	142	2,020	6,640	6,100	3,310	4,250	945	371	290	20	48
3	38	115	2,330	7,220	5,420	3,350	4,160	891	371	272	19	147
4	38	112	2,740	7,350	4,840	3,480	3,970	848	364	266	19	228
5	46	108	2,880	7,050	4,270	3,570	3,690	810	350	257	19	198
6	48	115	3,140	6,480	3,750	3,590	3,370	775	322	245	20	163
7	43	131	3,710	5,810	3,290	3,800	3,010	735	301	239	27	145
8	40	159	4,030	5,220	2,840	3,880	2,740	693	290	233	23	140
9	35	190	4,450	4,680	2,430	3,830	3,190	659	242	213	16	128
10	31	307	5,030	4,190	2,260	3,930	4,200	624	233	190	19	111
11	71	462	5,350	3,980	2,330	4,490	4,310	593	222	185	29	98
12	91	495	5,360	3,880	2,450	5,410	4,270	566	222	185	14	96
13	58	835	5,240	3,750	2,450	6,280	4,220	556	224	185	10	97
14	41	789	5,090	3,650	2,400	7,350	4,120	536	227	175	7.9	84
15	45	600	5,020	5,480	2,500	8,720	3,910	527	233	156	5.5	67
16	47	591	5,400	6,920	2,730	9,340	3,650	521	239	139	5.5	55
17	48	537	5,630	7,120	2,860	9,020	3,370	573	227	110	33	52
18	54	552	5,650	7,740	2,900	8,250	3,060	724	210	89	25	50
19	59	542	5,930	9,670	2,910	7,440	2,730	690	197	77	19	47
20	66	547	6,160	11,300	2,840	6,700	2,370	630	208	71	7.5	45
21	88	512	6,220	11,400	2,730	5,980	2,060	578	219	60	7.1	44
22	107	461	5,950	10,600	2,610	5,360	1,840	537	224	40	7.9	43
23	254	441	5,560	9,520	2,510	4,800	1,690	498	219	38	6.3	44
24	381	596	5,050	8,590	2,430	4,310	1,580	462	200	35	5.5	45
25	478	1,090	4,470	8,320	2,570	3,940	1,450	442	263	30	6.7	46
26	457	1,760	3,870	7,810	2,960	3,830	1,350	454	325	30	17	58
27	369	1,980	3,340	7,650	3,470	3,800	1,270	470	406	26	21	63
28	284	1,950	2,980	8,160	3,580	3,880	1,200	458	395	26	21	120
29	220	1,930	3,310	8,410	------	3,980	1,130	423	357	26	27	156
30	195	1,750	4,490	8,070	------	4,120	1,070	388	329	24	25	150
31	169	------	6,020	7,440	------	4,210	------	367	------	23	25	------
TOTAL	3,983	19,950	138,280	220,110	91,200	157,430	87,460	18,973	8,354	4,243	528.9	2,796
MEAN	128	665	4,461	7,100	3,257	5,078	2,915	612	278	137	17.1	93.2
MAX	478	1,980	6,220	11,400	6,770	9,340	4,310	1,000	406	308	33	228
MIN	31	108	1,860	3,650	2,260	3,310	1,070	367	197	23	5.5	28
AC-FT	7,900	39,570	274,300	436,600	180,900	312,300	173,500	37,630	16,570	8,420	1,050	5,550
MEAN†	167	694	4,588	7,286	3,374	5,227	3,025	665	339	183	53.2	152
CFSM†	0.24	0.98	6.50	10.3	4.78	7.40	4.28	0.94	0.48	0.26	0.08	0.22
IN.†	0.27	1.10	7.49	11.90	4.98	8.54	4.78	1.09	.54	.30	.09	.24
AC-FT†	10,270	41,290	282,100	448,000	187,400	321,400	180,000	40,910	20,170	11,240	3,270	9,040

CAL YR 1970 TOTAL 629,826.7 MEAN 1,726 MAX 14,100 MIN 2.0 AC-FT 1,249,000 MEAN† 7,286 CFSM† 2.54 IN.† 3.44 AC-FT† 1,296,000
WTR YR 1971 TOTAL 753,307.9 MEAN 2,064 MAX 11,400 MIN 5.5 AC-FT 1,494,000 MEAN† 2,148 CFSM† 3.04 IN.† 4.13 AC-FT† 1,555,000

† Adjusted for diversion of Oswego Canal.

14208600 Timothy Lake near Government Camp, Oreg.

LOCATION.--Lat 45°06'50", long 121°48'35", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Mount Hood National Forest, in intake structure 350 ft upstream from dam on Oak Grove Fork, 0.4 mile upstream from Anvil Creek, 14 miles south of Government Camp, and at mile 15.8.

DRAINAGE AREA.--53.8 sq mi.

PERIOD OF RECORD.--May 1956 to current year. Prior to October 1957, published as Timothy Meadows Reservoir.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland General Electric Co.).

EXTREMES.--Current year: Maximum contents observed (66,130 acre-ft July 20-29 (elevation, 3,190.3 ft); minimum observed, 48,740 acre-ft Jan. 8 (elevation, 3,176.8 ft).

Period of record: Maximum contents observed, 68,800 acre-ft Oct. 3, 1967 (elevation, 3,192.2 ft); minimum observed, 16,010 acre-ft Feb. 24, 1957 (elevation, 3,144.5 ft).

REMARKS.--Reservoir is formed by earth-fill dam with concrete spillway built by Portland General Electric Co. Usable storage began May 28, 1956. Capacity, 65,710 acre-ft at elevation 3,190 ft (normal maximum operating level). Usable capacity increased in 1966 water year to 64,450 acre-ft between elevations 3,125.0 (invert of outlet pipe) and 3,192.0 ft (top of radial gates). Storage of 4,060 acre-ft below elevation 3,125.0 ft not normally available for release. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland General Electric Co.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,187.8	62,720	-
Oct. 31	3,183.8	57,470	-5,250
Nov. 30	3,181.8	54,930	-2,540
Dec. 31	3,178.7	51,060	-3,870
CAL YR 1970	-	-	+860
Jan. 31	3,184.3	58,120	+7,060
Feb. 28	3,188.9	64,200	+6,080
Mar. 31	3,185.0	59,030	-5,170
Apr. 30	3,188.8	64,070	+5,040
May 31	3,189.9	65,570	+1,500
June 30	3,190.0	65,710	+140
July 31	3,190.2	65,990	+280
Aug. 31	3,190.0	65,710	-280
Sept.30	3,189.0	64,340	-1,370
WTR YR 1971	-	-	+1,620

14208700 Oak Grove Fork near Government Camp, Oreg.

LOCATION.--Lat 45°06'50", long 121°48'50", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Mount Hood National Forest, on right bank 0.1 mile upstream from Anvil Creek, 0.3 mile downstream from Timothy Lake, 14 miles south of Government Camp, and at mile 15.5.

DRAINAGE AREA.--54.4 sq mi.

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft above mean sea level (Portland General Electric Co. bench mark).

AVERAGE DISCHARGE.--15 years, 120 cfs (29.96 inches per year, 86,940 acre-ft per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 517 cfs May 26 (gage height, 3.11 ft); minimum, 33 cfs July 18, 19; minimum daily, 43 cfs Nov. 14, Apr. 10-13.

Period of record: Maximum discharge, 2,110 cfs Dec. 24, 1964 (gage height, 3.93 ft), from rating curve extended above 290 cfs on basis of slope-area measurement of peak flow; minimum, 3.7 cfs Sept. 23, 1968; minimum daily, 9.6 cfs Sept. 22, 1968.

REMARKS.--Records good. Regulation by Timothy Lake (see station 14208600). No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	384	243	181	223	49	320	115	231	438	198	146	155
2	378	243	191	235	49	325	115	263	350	155	146	152
3	371	243	137	247	49	330	121	281	345	171	137	92
4	371	243	135	247	49	335	115	251	345	177	105	89
5	358	243	140	256	73	277	89	251	345	177	105	99
6	366	243	51	264	96	239	51	256	320	177	109	97
7	268	243	51	256	115	239	44	264	323	176	105	87
8	146	243	92	107	121	239	49	269	320	123	102	97
9	89	235	163	49	125	239	44	273	310	137	162	135
10	89	222	162	51	49	243	43	345	320	216	118	231
11	89	155	168	48	47	239	43	420	300	212	123	264
12	86	62	168	47	46	239	43	426	281	60	162	264
13	82	110	168	62	46	239	43	400	266	123	92	192
14	87	43	181	121	47	243	44	468	266	149	89	123
15	89	115	181	60	47	243	44	420	269	137	92	92
16	87	156	192	55	47	263	44	468	269	183	97	92
17	89	162	231	56	47	263	49	423	267	166	97	92
18	87	163	235	62	46	263	44	365	261	99	97	92
19	87	166	235	62	46	263	92	365	263	69	97	92
20	87	161	226	58	46	239	102	385	263	87	97	89
21	87	181	220	55	51	263	112	550	263	137	97	89
22	87	230	201	53	59	263	163	550	261	121	96	89
23	89	227	256	51	99	263	171	350	263	137	96	89
24	67	60	251	56	86	191	177	389	263	110	96	89
25	67	69	263	51	141	96	225	392	263	129	96	89
26	176	67	256	51	291	66	188	458	263	121	96	89
27	177	66	263	69	325	87	220	438	231	118	96	92
28	267	[illegible]	263	69	325	119	216	380	196	135	96	186
29	267	[illegible]	[illegible]	69	-------	112	271	[illegible]	196	145	96	231
30	267	[illegible]	[illegible]	69	-------	66	294	[illegible]	223	150	96	436
31	267	-------	181	69	-------	67	-------	[illegible]	-------	182	96	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible] MEAN† [illegible] CFSM† [illegible] IN.† [illegible] AC-FT† [illegible]

WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible] MEAN† [illegible] CFSM† [illegible] IN.† [illegible] AC-FT† [illegible]

† Adjusted for change in contents in Timothy Lake.

14209000 Oak Grove Fork above powerplant intake, Oreg.

LOCATION.--Lat 45°04'20", long 121°57'00", on line between secs.3 and 4, T.6 S., R.7 E., Clackamas County, Mount Hood National Forest, on right bank 0.2 mile upstream from Spring Creek, 0.7 mile upstream from Kink Creek, 1.0 mile upstream from Portland General Electric Co. diversion dam, 24 miles southeast of Estacada, and at mile 6.1.

DRAINAGE AREA.--126 sq mi, includes that of Spring Creek.

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as both Oak Grove Fork of Clackamas River at proposed intake, near Cazadero, and Oak Grove Fork of Clackamas River at intake, near Cazadero, May 1909 to September 1910, as Oak Grove Fork of Clackamas River at intake, near Cazadero, October 1910 to September 1921, and as Oak Grove Fork at Portland General Electric Power Co. intake, October 1921 to September 1929.

GAGE.--Water-stage recorder. Datum of gage is 2,052.31 ft above mean sea level. May 21, 1909, to Nov. 17, 1911, nonrecording gage and Mar. 26, 1912, to Sept. 30, 1923, water-stage recorder, at various sites 0.7 mile downstream, below Kink Creek, at different datum.

AVERAGE DISCHARGE.--62 years, 500 cfs (362,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,660 cfs Jan. 19 (gage height, 3.89 ft); minimum, 285 cfs Oct. 12-14, 26.
Period of record: Maximum discharge, 5,000 cfs Jan. 7, 1923 (gage height, 5.45 ft, site and datum then in use), from rating curve extended above 2,300 cfs on basis of peak discharge for other stations in Clackamas River basin; minimum, 236 cfs Oct. 15, 16, 18, 1931.

REMARKS.--Records good. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion above station. Records include flow of Spring Creek.

REVISIONS (WATER YEARS).--WSP 1248: 1909, 1910(M), 1916, 1918, 1923, 1932. WSP 1935: 1914, 1921.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	467	509	527	591	743	515	750	1,080	591	425	485
2	565	467	503	521	565	736	509	844	964	539	420	497
3	539	467	461	521	539	736	509	908	924	565	414	387
4	539	467	409	521	533	729	515	1,050	932	565	381	363
5	539	479	485	521	521	652	521	1,010	924	565	376	365
6	539	485	425	521	515	584	515	980	900	539	370	362
7	479	485	515	527	521	591	515	1,020	908	527	370	353
8	370	497	503	591	509	578	527	1,080	900	467	370	345
9	313	515	521	771	527	571	610	1,070	884	479	370	355
10	310	479	509	757	617	604	604	1,110	876	558	381	467
11	303	529	515	610	610	630	571	1,200	860	552	387	527
12	285	449	515	533	591	666	533	1,200	844	500	370	527
13	285	443	503	529	610	630	521	1,300	820	443	355	473
14	285	325	539	521	666	624	521	1,320	820	467	355	376
15	290	365	527	673	757	604	533	1,210	806	467	355	363
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

14209500 Clackamas River above Three Lynx Creek, Oreg.

LOCATION.--Lat 45°07'30", long 122°04'20", in NE¼ sec.21, T.5 S., R.6 E., Clackamas County, Mount Hood National Forest, on right bank 0.1 mile upstream from Three Lynx Creek, 0.25 mile downstream from powerplant, 17 miles southeast of Estacada, and at mile 47.8.

DRAINAGE AREA.--479 sq mi.

PERIOD OF RECORD.--April 1909 to December 1913, October 1921 to current year. Prior to October 1911 (monthly discharge only), published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,091.69 ft above mean sea level (levels by Portland General Electric Co.). Apr. 23, 1909, to Jan. 4, 1914, nonrecording gage at about same site and datum. Nov. 1, 1921, to Dec. 27, 1924, water-stage recorder at present site at datum 0.91 ft higher.

AVERAGE DISCHARGE.--54 years, 1,971 cfs (55.88 inches per year, 1,428,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,700 cfs Jan. 19 (gage height, 10.69 ft); minimum, 476 cfs Sept. 21-24; minimum daily, 673 cfs Oct. 12.

Period of record: Maximum discharge, 68,200 cfs Dec. 22, 1964 (gage height, 21.7 ft, from floodmark), from rating curve extended above 34,100 cfs on basis of slope-area measurement at gage height 15.06 ft; minimum, 324 cfs Oct. 17, 1958; minimum daily, 427 cfs Oct. 5, 1958.

REMARKS.--Records excellent. Minor regulation since 1956 by Timothy Lake (see station 14208600). Considerable diurnal fluctuation during period of low flow.

REVISIONS (WATER YEARS).--WSP 1184: Drainage area. WSP 1248: 1910(M), 1912, 1948-50(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	973	1,070	2,110	2,940	3,600	2,300	3,080	3,240	3,720	2,110	1,080	1,840
2	973	1,080	1,960	2,410	3,200	2,250	2,830	4,090	3,320	2,050	1,060	2,250
3	976	1,090	1,990	2,100	3,000	2,360	2,690	5,200	3,100	1,950	1,050	1,670
4	964	1,110	1,780	1,930	2,800	2,240	2,630	5,780	3,230	1,920	1,040	1,310
5	996	1,160	2,530	1,790	2,600	2,080	2,810	5,000	3,380	1,870	976	1,190
6	1,020	1,540	4,090	1,710	2,400	1,920	3,150	4,320	3,420	1,810	992	1,150
7	945	1,410	6,110	1,650	2,400	1,900	3,190	4,400	3,680	1,620	964	1,030
8	864	1,790	4,830	2,330	2,400	2,020	3,260	5,220	3,480	1,730	946	988
9	827	2,300	3,600	4,910	3,300	1,960	4,960	5,160	3,390	1,710	942	976
10	828	2,190	3,010	6,150	4,300	2,560	4,880	4,830	3,300	1,760	966	1,130
11	775	3,110	3,170	4,310	4,800	3,720	4,150	5,020	3,240	1,600	934	1,130
12	673	[illegible]	2,770	3,290	4,250	4,430	3,570	5,990	3,270	1,620	920	1,200
13	771	2,690	2,470	2,760	4,200	3,750	3,250	6,600	3,330	1,470	904	868
14	792	1,990	2,350	[illegible]	4,610	3,230	3,360	5,650	3,530	1,460	898	828
15	957	1,760	2,560	5,170	5,530	2,830	3,080	5,240	3,240	1,460	892	916
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	[illegible]	------	[illegible]	------	[illegible]	[illegible]	------
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

14210000 Clackamas River at Estacada, Oreg.

LOCATION.--Lat 45°18'00", long 122°21'10", in NE¼ sec.19, T.3 S., R.4 E., Clackamas County, on left bank 0.2 mile downstream from River Mill Dam, 1.5 miles northwest of Estacada, and at mile 23.1.

DRAINAGE AREA.--671 sq mi.

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only April 1908, published in WSP 1318. Published as "near Cazadera" January 1909 to September 1957.

GAGE.--Water-stage recorder. Datum of gage is 296.93 ft above mean sea level (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Feb. 16, 1965, water-stage recorder at same site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--63 years, 2,727 cfs (55.19 inches per year, 1,976,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,400 cfs Jan. 19 (gage height, 11.06 ft); minimum, 278 cfs Nov. 6.
Period of record: Maximum discharge, 86,000 cfs Dec. 22, 1964 (gage height, 18.36 ft); minimum, 50 cfs Mar. 10, 1961, from rating curve extended below 280 cfs; minimum daily, 285 cfs Oct. 4, 5, 1958, caused by filling of North Fork dam forebay.

REMARKS.--Records excellent except those below 1,000 cfs, which are good. Large diurnal fluctuations and some regulation caused by powerplants at River Mill Dam and, since 1958, North Fork Dam. Minor regulation since 1956 by Timothy Lake (see station 14208600). Two small diversions above station for Oregon City and Estacada municipal water supply.

REVISIONS (WATER YEARS).--WSP 1248: 1908-9, 1910(M), 1916, 1917(M), 1922(M), 1923. WSP 1288: Drainage area (former site). WSP 1638: 1919(M). WRD Oreg. 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	990	1,160	[illegible]	[illegible]	5,570	2,900	4,580	3,990	5,080	2,670	1,210	1,720
2	1,030	1,190	[illegible]	[illegible]	5,040	2,910	3,990	5,210	4,460	2,200	1,230	3,160
3	[illegible]	[illegible]	[illegible]	[illegible]	4,450	3,010	3,730	6,960	3,860	2,380	1,150	2,580
4	[illegible]	[illegible]	[illegible]	[illegible]	4,590	3,230	3,600	7,850	3,940	2,450	1,160	1,720
5	[illegible]	[illegible]	[illegible]	[illegible]	4,330	3,020	3,460	6,860	4,320	2,580	1,150	1,330
6	[illegible]	[illegible]	[illegible]	[illegible]	3,900	2,400	4,480	6,280	4,310	2,440	1,050	1,290
7	[illegible]	[illegible]	[illegible]	[illegible]	2,530	2,740	4,620	5,580	4,530	2,040	1,060	1,080
8	[illegible]	[illegible]	[illegible]	[illegible]	2,340	2,710	4,730	6,720	4,520	2,080	1,070	1,030
9	[illegible]	[illegible]	[illegible]	[illegible]	2,990	2,550	6,780	6,810	4,300	2,030	1,010	1,240
10	[illegible]	[illegible]	[illegible]	[illegible]	6,280	3,330	7,360	6,420	4,200	2,300	1,040	1,100
11	[illegible]	[illegible]	[illegible]	[illegible]	7,140	5,440	6,460	6,430	4,120	2,130	1,080	1,160
12	[illegible]	[illegible]	[illegible]	[illegible]	6,170	6,950	6,080	7,750	3,800	2,150	1,010	1,270
13	[illegible]	[illegible]	[illegible]	[illegible]	6,390	6,410	5,110	8,670	3,970	2,010	1,020	1,010
14	[illegible]	[illegible]	[illegible]	[illegible]	6,330	5,990	4,560	7,330	4,670	1,880	990	1,130
15	[illegible]	[illegible]	[illegible]	[illegible]	8,770	4,230	4,590	6,550	4,170	1,590	982	1,090
16	[illegible]	[illegible]	[illegible]	[illegible]	7,250	3,690	3,620	6,510	4,120	1,420	1,100	966
17	[illegible]	[illegible]	[illegible]	[illegible]	6,240	3,100	3,830	5,600	3,490	1,600	1,040	878
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2,860	3,870	4,790	3,460	1,860	848	1,060
19	[illegible]	[illegible]	[illegible]	[illegible]	4,690	2,760	3,700	4,660	3,760	1,580	1,080	810
20	[illegible]	[illegible]	[illegible]	[illegible]	4,170	2,960	3,100	4,650	3,760	1,590	918	833
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2,560	3,510	4,470	3,690	1,690	910	1,010
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,590	[illegible]	910
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	[illegible]	------	[illegible]	------	[illegible]	[illegible]	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, [illegible]).--[illegible]

14211000 Clackamas River near Clackamas, Oreg.

LOCATION.--Lat 45°23'36", long 122°31'54", in NE¼SW¼ sec.14, T.2 S., R.2 E., Clackamas County, on left bank 0.8 mile upstream from Johnson Creek, 2.1 miles southeast of Clackamas, and at mile 4.8.

DRAINAGE AREA.--930 sq mi at gage, 936 sq mi at Gladstone Bridge 3.6 miles downstream, where high-flow discharge measurements are made.

PERIOD OF RECORD.--September 1911 to April 1912 (published as "at Park Place"), October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 50.68 ft above mean sea level (levels by Corps of Engineers). Sept. 15, 1911, to Apr. 22, 1912, nonrecording gage at site 3.6 miles downstream at different datum. Oct. 1, 1962 to Sept. 10, 1969, water-stage recorder at site 300 ft downstream at present datum.

AVERAGE DISCHARGE.--9 years, 3,631 cfs (53.02 inches per year, 2,631,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 45,600 cfs Jan. 19 (gage height, 15.10 ft); minimum, 394 cfs Oct. 4, 5.
Period of record: Maximum discharge, 120,000 cfs Dec. 22, 1964 (gage height, 27.0 ft, from floodmarks); minimum, 336 cfs Sept. 1, 11, 1969.

REMARKS.--Records good. Diurnal fluctuations and some regulation by powerplants and several storage dams upstream, operated by Portland General Electric Co. Small diversion above station for Estacada municipal water supply. Records of water temperatures for the water year 1971 are published in Part 2 of this report. All records given herein are for gage site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,040	1,510	5,180	7,540	6,590	3,610	5,670	4,470	5,360	2,840	1,160	1,550
2	1,050	1,330	4,080	5,940	5,990	3,810	5,140	5,490	4,770	2,340	1,200	3,350
3	1,050	1,510	4,670	4,650	5,340	4,100	4,590	7,100	4,240	2,480	1,200	2,860
4	1,020	1,700	5,140	3,780	5,210	4,650	4,440	8,210	4,200	2,520	1,140	2,160
5	1,020	1,780	4,730	3,560	4,950	4,590	4,260	7,320	4,500	2,440	1,120	1,290
6	1,190	2,000	7,230	3,410	4,060	3,610	9,100	6,630	4,460	2,720	1,050	1,580
7	1,190	1,900	9,940	3,510	3,380	3,770	5,290	5,930	4,580	2,130	1,010	1,300
8	1,020	2,500	9,140	5,340	2,650	4,300	5,370	6,770	4,650	2,080	1,070	897
9	1,100	3,700	7,440	12,000	3,420	3,710	8,440	7,020	4,360	2,070	991	1,450
10	1,220	3,800	5,620	15,100	6,350	4,540	9,870	6,560	4,260	2,300	983	1,280
11	1,150	4,000	5,890	10,700	8,020	7,490	8,770	6,400	4,260	2,160	1,030	1,080
12	1,230	7,020	5,300	7,830	6,870	9,790	7,890	7,760	3,850	2,160	945	1,460
13	1,000	5,750	5,200	6,280	6,650	9,340	6,670	8,830	4,080	2,000	979	1,000
14	976	3,820	3,930	5,420	6,620	8,500	9,810	7,720	4,790	2,050	946	1,180
15	911	3,240	4,460	9,500	9,530	6,610	5,710	6,670	4,440	1,460	968	1,320
16	939	3,610	6,590	17,200	8,150	6,010	4,700	6,530	4,320	1,440	930	976
17	890	4,360	6,110	21,800	6,810	4,440	4,890	5,890	3,690	1,640	1,170	904
18	946	4,260	4,500	22,000	5,600	3,990	4,800	5,050	3,560	1,880	769	1,050
19	911	4,670	4,100	31,100	5,350	4,080	4,540	4,890	3,870	1,560	927	883
20	976	5,360	3,700	25,600	4,960	3,840	3,860	4,850	3,970	1,610	966	827
21	1,290	5,030	3,700	14,600	4,040	3,800	4,520	4,710	3,800	1,490	909	925
22	1,990	3,360	3,610	10,600	4,390	4,220	5,960	4,610	4,040	1,500	985	1,070
23	2,410	4,140	3,220	8,880	3,920	6,300	5,560	4,550	4,120	1,460	1,000	883
24	4,080	10,700	2,950	9,310	3,910	6,640	5,120	5,600	4,180	1,450	1,170	869
25	3,360	10,200	1,860	9,910	5,290	7,980	5,960	6,030	5,290	1,360	965	939
26	2,270	10,100	2,720	8,700	6,750	8,140	4,760	6,860	5,250	1,320	895	1,230
27	2,400	9,080	2,760	7,250	6,630	7,510	4,270	7,400	4,550	1,360	840	1,090
28	1,970	7,820	3,000	6,100	6,350	6,080	4,890	7,150	3,780	1,290	860	1,410
29	1,800	5,690	4,690	5,910	-------	5,780	[illegible]	7,070	3,260	1,260	780	1,730
30	1,670	4,600	6,890	[illegible]	-------	6,540	4,140	6,420	2,970	1,210	844	1,060
31	1,180	-------	5,700	4,470	-------	6,210	-------	5,600	-------	1,260	990	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

PEAK DISCHARGE [illegible]

14211500 Johnson Creek at Sycamore, Oreg.

LOCATION.--Lat 45°28'40", long 122°30'24", in lot 2, SW¼ sec.13, T.1 S., R.2 E., Multnomah County, on right bank 0.3 mile southwest of Sycamore station, 2.5 miles east of city limits of Portland, and at mile 10.2.

DRAINAGE AREA.--28.2 sq mi.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 228.47 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 54.2 cfs (26.10 inches per year, 39,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Jan. 19 (gage height, 9.22 ft); minimum, 0.26 cfs Aug. 5, 21.
Period of record: Maximum discharge, 2,620 cfs Dec. 22, 1964 (gage height, 14.68 ft); minimum, 0.08 cfs Aug. 21, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by recreational ponds upstream. Small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1318: 1941(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	1.1	245	169	50	89	66	16	4.0	2.7	.54	12
2	.46	.86	146	108	45	111	57	14	4.2	2.4	.54	11
3	.50	.98	294	80	42	205	49	12	4.0	2.2	.46	6.0
4	.46	.92	189	60	63	174	41	11	3.9	1.9	.38	2.5
5	.54	1.5	181	48	54	147	36	11	3.9	1.8	.38	1.7
6	.98	1.9	153	39	46	156	31	8.9	3.6	1.8	.42	3.1
7	.80	4.1	157	37	41	179	28	7.4	3.4	1.6	.42	2.5
8	.58	8.1	107	356	36	135	50	6.2	3.4	1.5	.46	1.6
9	.58	20	81	515	39	119	413	5.7	3.5	1.9	.42	1.2
10	1.2	14	92	432	100	180	272	5.2	3.3	1.9	.35	1.5
11	.80	55	99	321	74	244	255	4.7	3.1	2.1	.38	1.9
12	.62	59	72	187	64	354	156	4.3	3.5	1.5	.35	1.8
13	.74	33	59	129	54	267	104	8.1	5.2	1.4	.35	1.2
14	.62	22	86	114	63	208	77	6.8	4.7	1.1	.32	.80
15	.50	25	169	736	96	151	65	6.0	3.3	.98	.35	.70
16	.46	73	258	606	83	111	65	6.2	2.8	.92	.32	.74
17	.54	49	148	347	66	85	65	5.2	2.5	1.1	.32	.58
18	1.3	38	94	312	66	68	49	4.7	3.7	.98	.29	.50
19	1.9	43	68	678	72	57	42	4.5	3.9	1.1	.32	.42
20	15	42	76	339	61	48	40	4.5	3.1	1.1	.29	.42
21	5.2	33	86	107	55	60	61	5.2	2.5	.66	.32	.38
22	5.0	26	60	140	68	60	36	4.3	2.2	.58	1.6	.38
23	11	34	50	170	60	124	35	4.0	1.9	.58	1.1	.38
24	5.0	216	43	105	76	111	36	4.0	1.9	.58	.62	.42
25	4.7	222	38	407	153	85	32	4.0	38	.62	.62	3.3
26	3.9	167	35	202	171	99	27	4.1	9.3	.58	.35	2.7
27	2.7	190	57	133	159	75	25	4.5	4.7	.58	.35	1.3
28	2.1	132	133	100	118	72	23	4.3	3.9	.54	.38	3.5
29	1.6	81	250	79	-------	63	20	4.1	3.3	.50	.35	11
30	1.4	100	454	66	-------	83	18	4.0	3.0	.50	.35	3.5
31	1.2	-------	427	56	-------	81	-------	4.0	-------	.50	.42	-------
TOTAL	72.80	1,679.46	4,407	7,356	2,081	4,001	2,280	198.9	143.7	38.20	13.92	79.02
MEAN	2.35	56.0	142	237	74.3	129	76.0	6.42	4.79	1.23	.45	2.63
MAX	15	222	454	736	171	354	413	16	38	2.7	1.6	12
MIN	.42	.86	35	37	36	48	18	4.0	1.9	.50	.29	.38
CFSM	.08	1.99	5.04	8.40	2.63	4.57	2.69	.23	.17	.04	.02	.09
IN.	.10	2.22	5.81	9.70	2.75	5.28	3.00	.26	.19	.05	.02	.10
AC-FT	144	3,330	8,740	14,590	4,130	7,940	4,520	395	285	76	28	157

CAL YR 1970 TOTAL 22,855.67 MEAN 62.6 MAX 1,030 MIN .42 CFSM 2.22 IN 30.15 AC-FT 45,300
WTR YR 1971 TOTAL 22,309.98 MEAN 61.1 MAX 736 MIN .29 CFSM 2.17 IN 29.45 AC-FT 44,250

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 2	1400	[illegible]	[illegible]	1-19	2400	9.22	1,110
12-30	2000	[illegible]	[illegible]	1-25	0800	[illegible]	[illegible]
1- 9	2030	[illegible]	[illegible]	4- 9	1000	[illegible]	[illegible]
1-15	0630	[illegible]	1,070				

14248700 Bear Creek near Svensen, Oreg.

LOCATION.--Lat 46°06'48", long 123°37'55", in NE¼NE¼ sec.11, T.7 N., R.8 W., Clatsop County, on right bank 0.5 mile upstream from the Astoria Reservoir Dam and 3.8 miles southeast of Svensen.

DRAINAGE AREA.--3.33 sq mi.

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 17.2 cfs (70.14 inches per year, 12,460 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 211 cfs Jan. 25 (gage height, 3.31 ft); minimum, 2.6 cfs Aug. 17, 18.
Period of record: Maximum discharge, 211 cfs Jan 25, 1971 (gage height, 3.31 ft); minimum, 1.2 cfs Sept. 8, 9, 1967.

REMARKS.--Records good. Flow regulated by Wickiup Lake and Middle Lake. No diversion above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Oreg. 1970: 1966(M), 1967(P), 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	4.8	28	47	42	21	31	11	10	7.7	5.5	7.7
2	6.2	4.8	25	38	39	24	28	11	9.3	7.7	5.2	12
3	6.0	4.8	36	34	36	26	26	11	7.9	7.4	5.5	7.1
4	6.0	5.0	28	31	38	24	24	11	7.3	7.4	5.5	6.0
5	6.2	5.5	72	30	33	22	23	11	7.7	7.4	5.5	6.5
6	5.7	5.7	139	28	31	23	22	10	8.5	7.4	5.5	6.0
7	5.5	7.7	93	27	29	31	21	10	9.0	7.1	5.2	5.5
8	5.7	11	57	45	27	28	24	9.8	8.6	7.1	5.2	5.2
9	7.7	8.7	46	85	31	27	29	9.6	8.4	7.1	5.2	5.2
10	6.5	8.0	46	73	36	70	28	8.3	8.6	6.8	5.0	5.0
11	6.3	10	44	52	31	78	28	6.0	9.1	6.8	5.0	5.5
12	5.5	21	39	44	28	69	25	9.9	9.1	6.8	5.2	5.0
13	5.5	16	35	39	26	53	23	8.3	10	6.5	5.2	4.8
14	6.0	12	44	39	28	47	21	8.0	10	6.5	5.2	4.6
15	5.2	11	60	120	30	41	21	8.2	9.1	6.2	5.2	4.4
16	5.0	12	87	88	31	36	19	14	8.7	6.2	4.6	4.4
17	4.8	[illegible]	67	72	34	32	18	9.2	8.7	6.0	2.9	4.6
18	4.8	12	51	62	35	33	17	8.0	8.7	5.7	3.2	4.8
19	4.6	13	45	75	36	28	16	9.3	8.7	5.7	4.6	4.8
20	5.5	15	41	61	32	25	16	9.8	8.7	5.7	4.8	4.6
21	8.4	14	36	54	31	24	15	9.7	8.4	5.5	5.0	4.6
22	19	16	36	81	31	23	15	12	8.0	5.5	5.3	4.6
23	29	24	33	121	29	26	14	11	8.0	5.5	5.0	4.8
24	16	[illegible]	37	108	31	27	14	11	8.7	5.5	5.0	5.5
25	13	[illegible]	28	104	31	24	14	13	11	5.7	5.0	6.2
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------

[illegible]

[illegible]

NEHALEM RIVER BASIN

14301000 Nehalem River near Foss, Oreg.

LOCATION.--Lat 45°42'15", long 123°45'15", in NW¼ sec.35, T.3 N., R.9 W., Tillamook County, on right bank 0.2 mile upstream from Cook Creek, 2.2 miles northeast of Foss, and at mile 13.5.

DRAINAGE AREA.--667 sq mi.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft above mean sea level (State Highway Department bench mark). Prior to Nov. 11, 1939, nonrecording gage.

AVERAGE DISCHARGE.--32 years, 2,742 cfs (55.83 inches per year, 1,987,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 35,800 cfs Dec. 7 (gage height, 20.76 ft, from floodmark); minimum, 103 cfs Oct. 4.
Period of record: Maximum discharge, 43,200 cfs Jan. 25, 1964 (gage height, 21.10 ft); maximum gage height, 21.53 ft Dec. 23, 1964; minimum discharge, 34 cfs Aug. 29-31, 1967.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation. Several small diversions for irrigation and domestic use above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	510	4,000	19,700	4,200	3,200	8,660	1,260	763	505	208	253
2	112	455	3,500	11,400	3,700	3,500	6,960	1,220	735	477	202	978
3	109	420	3,200	7,630	3,500	4,500	5,590	1,210	714	445	198	874
4	103	400	3,000	5,700	4,500	4,200	4,540	1,150	686	420	197	588
5	112	420	2,800	4,450	3,800	3,600	3,860	1,090	651	410	194	472
6	120	570	10,000	3,580	3,400	3,300	3,450	1,030	612	410	190	435
7	117	686	33,000	3,030	3,000	3,800	3,110	978	606	400	185	380
8	114	1,900	25,100	3,220	2,800	4,500	3,470	946	594	390	181	337
9	122	2,000	15,800	6,890	3,500	4,000	5,620	898	576	430	175	310
10	143	1,720	10,300	8,750	9,500	8,000	7,150	842	558	445	167	283
11	159	3,270	10,400	8,170	8,000	20,000	7,260	802	528	499	159	270
12	149	4,870	9,220	6,970	7,500	24,300	6,650	786	522	488	151	253
13	137	3,890	7,370	5,680	5,500	22,100	5,790	802	546	435	144	237
14	131	2,840	6,570	4,700	5,000	15,900	4,920	826	679	400	143	222
15	122	2,250	9,640	15,500	7,500	11,700	4,230	802	606	365	143	211
16	117	3,300	17,500	20,900	8,000	9,320	3,650	2,240	582	342	140	201
17	114	2,800	20,700	23,300	6,500	7,490	3,300	2,130	534	324	137	187
18	140	3,300	15,600	20,400	5,500	6,020	2,960	1,800	516	301	135	176
19	169	2,900	9,750	19,800	4,800	4,950	2,590	1,500	522	288	136	169
20	257	2,600	7,330	17,100	4,200	4,220	2,370	1,450	516	274	136	166
21	624	2,500	5,770	13,200	3,600	3,660	2,190	1,390	494	259	140	162
22	1,860	2,400	4,560	12,000	3,400	3,650	2,010	1,240	461	245	151	155
23	5,280	6,500	3,650	14,700	3,600	5,440	1,880	1,140	455	239	152	155
24	4,240	13,000	3,080	17,600	4,500	7,610	1,790	1,060	461	235	143	159
25	2,900	9,500	2,680	30,500	6,000	7,130	1,670	1,030	882	230	139	180
26	2,000	7,900	2,400	31,400	5,500	8,590	1,990	1,050	858	225	136	222
27	1,420	6,500	2,260	20,000	4,500	10,100	1,990	994	778	219	132	233
28	1,070	7,200	3,360	11,000	3,800	10,900	1,480	922	658	216	129	435
29	818	5,500	6,590	8,000	------	11,500	1,400	866	588	211	125	1,030
30	672	4,500	22,100	6,000	------	12,900	1,310	834	546	206	125	938
31	576	------	24,900	4,800	------	10,800	------	794	------	208	169	------
TOTAL	24,124	104,201	306,110	386,070	139,300	260,080	113,000	35,082	18,210	10,941	4,862	10,671
MEAN	778	3,473	9,875	12,450	4,975	8,390	3,767	1,132	607	353	157	356
MAX	5,280	13,000	33,000	31,400	9,500	24,300	8,660	2,240	882	505	208	1,030
MIN	103	400	2,260	3,030	2,800	3,200	1,310	786	455	206	125	155
CFSM	1.17	5.21	14.8	18.7	7.46	12.6	5.65	1.70	.91	.53	.24	.53
IN.	1.35	5.81	17.07	21.53	7.77	14.51	6.30	1.96	1.02	.61	.27	.60
AC-FT	47,850	206,700	607,200	765,800	276,300	515,900	224,100	69,580	36,120	21,700	9,640	21,170

CAL YR 1970 TOTAL 1,096,150 MEAN 3,003 MAX 33,000 MIN 62 CFSM 4.50 IN 61.13 AC-FT 2,174,000
WTR YR 1971 TOTAL 1,412,650 MEAN 3,870 MAX 33,000 MIN 103 CFSM 5.80 IN 78.76 AC-FT 2,801,000

PEAK DISCHARGE (BASE, 15,000 CFS)

NOTE.--No gage-height record Jan. 27 to Mar. 11.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	unknown	20.76	35,800	1-25	[illegible]	[illegible]	[illegible]
12-17	0730	16.40	21,300	[illegible]	[illegible]	[illegible]	[illegible]
12-30	1930	17.96	26,700	[illegible]	[illegible]	[illegible]	[illegible]

14301500 Wilson River near Tillamook, Oreg.

LOCATION.--Lat 45°29'05", long 123°41'20", in SW¼SE¼ sec.8, T.1 S., R.8 W., Tillamook County, on right bank 0.2 mile upstream from Negro Jack Creek and 8.0 miles east of Tillamook, and at mile 11.4.

DRAINAGE AREA.--161 sq mi at cableway, 2.0 miles downstream, where all discharge measurements are made.

PERIOD OF RECORD.--October 1914 to September 1915, August to November 1916, July 1931 to current year. Prior to January 1915 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 71.89 ft above mean sea level. Dec. 18, 1914, to Nov. 4, 1916, nonrecording gage at site 2.8 miles downstream at different datum. July 30, 1931, to Sept. 30, 1938, nonrecording gage at site 2.82 miles downstream at datum 28.83 ft lower. Oct. 1, 1938, to Oct. 17, 1968, water-stage recorder at site 2.1 miles downstream at datum 29.76 ft lower.

AVERAGE DISCHARGE.--41 years (1914-15, 1931-71), 1,214 cfs (102.40 inches per year, 879,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,800 cfs Dec. 6 (gage height, 12.25 ft); maximum gage height, 12.53 ft Dec. 10; minimum discharge 102 cfs Oct. 1, 15-18.

Period of record: Maximum discharge, 32,100 cfs Dec. 22, 1964 (gage height, 20.26 ft, site and datum then in use); minimum, 34 cfs Sept. 1-5, 18-22, 1967, but may have been less for short period following a landslide Jan. 31, 1965.

Flood in February 1916 reached a stage of 20.8 ft, from floodmarks, site and datum then in use.

REMARKS.--Records good. No regulation. Small diversions for domestic use above station.

REVISIONS (WATER YEARS).--WSP 1398: 1953. WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	377	1,670	4,370	1,910	1,310	2,840	660	365	385	101	425
2	111	345	1,490	3,030	1,650	1,380	2,300	708	346	360	172	1,260
3	105	321	1,540	2,320	1,440	1,930	1,970	806	338	338	166	684
4	105	315	1,340	1,890	1,790	1,700	1,730	785	320	315	160	430
5	105	346	3,680	1,590	1,520	1,440	1,610	678	307	307	160	365
6	112	444	16,000	1,390	1,340	1,390	1,610	588	303	299	157	338
7	112	499	13,300	1,260	1,210	1,620	1,490	552	295	283	151	291
8	109	1,220	6,180	1,400	1,110	1,710	1,890	564	287	279	145	261
9	112	1,210	3,900	3,400	1,300	1,590	3,160	534	275	322	143	244
10	116	1,040	3,540	4,250	3,740	5,710	3,250	480	275	356	140	226
11	115	2,370	4,200	3,220	3,140	7,590	2,640	445	272	415	135	223
12	112	2,810	3,120	2,450	2,410	7,630	2,190	450	268	405	130	212
13	109	1,840	2,410	2,000	2,030	5,040	1,900	470	315	360	130	196
14	106	1,310	2,470	1,710	2,070	3,760	1,700	490	450	315	128	190
15	103	1,080	3,790	6,050	3,210	3,030	1,540	465	375	303	128	181
16	102	1,760	6,240	9,720	3,250	2,450	1,400	1,570	328	275	125	172
17	102	1,570	5,090	9,560	2,580	2,060	1,260	1,210	315	268	125	163
18	128	1,750	3,410	6,170	2,230	1,800	1,130	1,020	315	247	123	160
19	151	1,660	2,510	7,160	1,970	1,630	1,030	883	351	240	123	157
20	269	1,500	2,060	5,300	1,700	1,520	974	806	360	236	120	157
21	489	1,290	1,630	3,840	1,910	1,390	904	714	351	219	125	154
22	1,280	1,100	1,360	3,960	1,900	1,780	862	648	315	205	140	151
23	3,480	2,260	1,180	4,310	1,450	3,620	813	600	311	199	132	148
24	2,500	7,800	1,090	5,760	2,310	4,460	764	552	333	196	120	151
25	1,730	5,010	953	13,300	2,650	3,130	732	540	1,050	196	110	163
26	1,290	5,330	862	10,300	2,160	3,710	820	522	820	193	105	175
27	868	3,330	862	5,580	1,020	3,660	849	480	636	190	100	163
28	683	2,760	1,260	3,790	1,520	3,550	806	440	566	187	100	261
29	919	2,130	1,030	2,820	------	4,040	752	415	485	186	100	606
30	680	1,890	10,700	2,380	------	5,260	678	405	430	184	105	510
31	622	------	8,290	2,190	------	5,560	------	385	------	184	280	------
TOTAL	16,993	56,667	117,157	136,470	56,520	95,290	45,594	19,865	11,757	8,445	4,179	8,817
MEAN	548	1,889	3,779	4,402	2,019	3,074	1,520	641	392	272	135	294
MAX	3,480	7,800	16,000	13,300	3,740	7,630	3,250	1,570	1,050	415	280	1,260
MIN	102	315	862	1,260	1,020	1,310	678	385	268	184	100	148
CFSM	3.40	11.7	23.5	27.3	12.5	19.1	9.44	3.98	2.43	1.69	.84	1.83
IN.	3.92	13.09	27.07	31.53	13.06	22.01	10.53	4.59	2.72	1.95	.97	2.04
AC-FT	33,700	112,400	232,400	270,700	112,100	189,000	90,440	39,400	23,320	16,750	8,290	17,490

CAL YR 1970 TOTAL 451,007 MEAN 1,236 MAX 16,000 MIN 67 CFSM 7.68 IN 104.18 AC-FT 894,600
WTR YR 1971 TOTAL 574,564 MEAN 1,574 MAX 16,000 MIN 100 CFSM 9.78 IN 132.76 AC-FT 1,140,000

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 6	1330	12.25	18,800	1-25	0300	10.60	13,600
12-10	1830	12.53	18,400				

14302500 Trask River near Tillamook, Oreg.

LOCATION.--Lat 45°26'25", long 123°43'00", in NW¼NW¼ sec.31, T.1 S., R.8 W., Tillamook County, on right bank 0.6 mile upstream from Gold Creek, 6.2 miles east of Tillamook, and at mile 10.4.

DRAINAGE AREA.--145 sq mi.

PERIOD OF RECORD.--July 1931 to September 1955, October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 58 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--34 years, 966 cfs (90.47 inches per year, 699,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,100 cfs Jan. 25 (gage height, 8.68 ft); minimum, 68 cfs Oct. 3.
Period of record: Maximum discharge, 23,000 cfs Dec. 22, 1964 (gage height, 13.34 ft); minimum, 42 cfs Oct. 15-18, 1952, Sept. 28, 1967.
Maximum stage about 17 ft, probably Nov. 20, 1921 (discharge, 30,000 cfs, from rating curve extended above 12,000 cfs). Flood of Dec. 21, 1955, reached a stage of 13.09 ft, from floodmark (discharge, 20,200 cfs).

REMARKS.--Records excellent. No regulation. Water diverted from the J. W. Barney Reservoir (capacity, 20,000 acre-ft) on the Middle Fork of the North Fork of the Trask River to the Tualatin River for domestic use and pollution abatement by the city of Hillsboro amounted to 1,040 acre-ft for the 1971 water year. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 1044: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	258	1,440	3,480	1,360	1,030	2,110	509	352	265	142	295
2	74	241	1,300	2,340	1,180	1,110	1,780	502	330	250	136	1,080
3	71	217	1,490	1,750	1,050	1,510	1,540	509	310	236	133	593
4	71	221	1,310	1,400	1,430	1,360	1,360	495	300	228	130	370
5	80	254	2,380	1,160	1,190	1,160	1,250	460	285	224	133	320
6	85	335	8,640	997	1,040	1,130	1,210	430	280	228	127	290
7	77	344	8,600	892	936	1,310	1,110	412	280	216	121	232
8	76	748	4,620	1,150	860	1,330	1,310	400	270	212	118	212
9	83	768	2,870	3,200	999	1,240	2,110	382	255	260	115	196
10	99	653	2,450	3,810	2,430	4,180	2,390	364	270	255	112	184
11	88	1,680	2,730	2,830	1,910	6,560	2,030	346	260	270	109	184
12	83	2,020	2,120	2,090	1,550	7,040	1,730	335	245	236	109	172
13	78	1,430	1,710	1,670	1,330	4,540	1,510	358	300	216	109	160
14	78	1,020	1,800	1,410	1,350	3,270	1,360	340	340	208	112	151
15	76	858	2,880	4,780	1,820	2,530	1,240	358	280	196	112	151
16	71	1,260	5,060	7,000	1,970	1,980	1,130	1,180	255	188	109	148
17	73	1,160	4,070	6,700	1,690	1,660	1,030	892	245	180	106	139
18	102	1,380	2,750	4,630	1,540	1,440	918	740	265	172	106	139
19	117	1,300	2,000	5,180	1,370	1,300	846	684	265	168	103	136
20	194	1,220	1,730	4,190	1,200	1,210	812	642	245	164	106	136
21	340	1,070	1,400	3,130	1,090	1,120	760	586	236	157	112	133
22	666	926	1,170	3,330	1,090	1,340	719	537	224	154	124	133
23	1,620	1,260	1,010	4,790	1,030	2,240	698	495	228	151	118	133
24	1,170	4,280	893	5,580	1,620	3,000	663	460	245	151	106	139
25	903	3,150	808	12,200	1,910	2,240	628	474	607	148	103	154
26	762	2,370	746	9,300	1,600	2,790	628	454	424	145	100	164
27	548	2,730	756	4,820	1,390	3,000	628	424	350	142	107	148
28	437	2,280	1,120	3,140	1,180	2,580	600	394	325	142	103	220
29	351	1,760	1,570	2,250	------	2,900	565	376	305	139	100	660
30	320	1,600	7,080	1,820	------	3,230	530	370	280	139	103	364
31	[illegible]	------	4,660	1,580	------	8,700	------	550	------	142	149	------
TOTAL	[illegible]	38,793	85,161	112,599	39,115	74,110	35,181	15,266	8,666	5,982	3,562	7,336
MEAN	297	1,293	2,747	3,632	1,397	2,391	1,173	492	289	193	115	245
MAX	1,620	4,280	8,640	12,200	2,430	7,040	2,390	1,180	607	270	149	1,080
MIN	71	217	746	892	860	1,030	530	335	224	139	100	133
CFSM	2.05	8.92	18.9	25.0	9.63	16.5	8.09	3.39	1.99	1.33	.79	1.69
IN.	2.37	9.95	21.85	28.89	10.04	19.01	9.03	3.92	2.22	1.53	.91	1.88
AC-FT	18,290	76,950	168,900	223,300	77,580	147,000	69,780	30,280	17,190	11,870	7,070	14,550

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX 8,640 MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN 1,192 MAX 12,200 MIN 71 CFSM [illegible] IN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, 9,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	[illegible]	7.86	10,400	[illegible]	[illegible]	[illegible]	10,400
1-25	[illegible]	8.68	13,100				

NESTUCCA RIVER BASIN

14302800 McGuire Lake near Fairdale, Oreg.

LOCATION.--Lat 45°18'30", long 123°24'30", in NW¼SE¼ sec.15, T.3 S., R.6 W., Yamhill County, on control tower in reservoir on Nestucca River, 0.3 mile upstream from Walker Creek and 5.0 miles southwest of Fairdale.

DRAINAGE AREA.--2.85 sq mi.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents observed, 3,840 acre-ft Mar. 31 (elevation, 1,865.5 ft); minimum observed, 430 acre-ft Oct. 1 (elevation, 1,826.0 ft).

REMARKS.--Reservoir is formed by earthfill dam with ungated spillway. Capacity of reservoir is 3,840 acre-ft between elevations 1,810.0 and 1,865.5 ft. Dead storage negligible. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be temporary storage. Water is used during summer months for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

MONTHEND ELEVATION AND CONTENTS WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in Contents (acre-feet)
Sept.30	1,826.0	430	-
Oct. 31	-	a1,060	+630
Nov. 30	-	a1,650	+590
Dec. 31	-	a2,260	+610
CAL YR 1970	-	-	+2,260
Jan. 31	1,858.2	2,870	+610
Feb. 28	-	a3,830	+960
Mar. 31	1,865.5	3,840	+10
Apr. 30	1,865.0	3,770	-70
May 31	1,864.5	3,700	-70
June 30	1,864.1	3,640	-60
July 31	1,862.5	3,420	-220
Aug. 31	1,856.3	2,650	-770
Sept.30	1,849.0	1,920	-730
WTR YR 1971	-	-	+1,490

a Interpolated.

14302900 Nestucca River near Fairdale, Oreg.

LOCATION.--Lat 45°18'40", long 123°25'05", in SW¼NW¼ sec.15, T.3 S., R.6 W., Yamhill County, on right bank 100 ft upstream from former Meadow Lake, 0.4 mile downstream from Walker Creek, 5.3 miles southwest of Fairdale, and at mile 49.3.

DRAINAGE AREA.--6.18 sq mi.

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,778.99 ft (corrected) above mean sea level (levels by city of McMinnville).

AVERAGE DISCHARGE.--11 years, 33.4 cfs (73.39 inches per year, 24,200 acre-ft per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 325 cfs Dec. 7 (gage height, 6.62 ft, from floodmark); maximum gage height, 6.64 ft, from floodmark, Dec. 30 (backwater from debris); minimum recorded, 1.5 cfs Oct. 13, but may have been less during period of no gage-height record Oct. 13 to Nov. 16.
Period of record: Maximum discharge, 876 cfs Dec. 22, 1964 (gage height, 10.43 ft); minimum, 0.87 cfs July 17, 1968.

REMARKS.--Records fair. Flow regulated since March 1969 by McGuire Lake about 1 mile above station (see station 14302800); during winter months lake is empty except when inflow exceeds capacity of outlet tunnel.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	9.4	50	140	44	25	75	21	12	8.8	4.7	19
2	21	8.4	46	110	39	26	63	21	12	7.0	5.0	25
3	21	8.0	42	80	33	34	52	19	11	6.7	6.1	19
4	20	9.0	40	66	44	28	44	18	11	7.3	6.1	18
5	19	11	120	46	33	22	42	17	11	7.3	6.1	18
6	18	14	220	35	29	21	44	17	11	7.3	6.1	17
7	17	13	271	23	26	27	42	16	11	7.0	6.1	17
8	14	22	189	25	23	25	69	16	11	5.8	6.1	16
9	7.9	20	154	56	26	24	129	15	11	5.3	7.1	16
10	2.0	25	156	68	48	84	120	15	11	5.3	8.2	16
11	1.8	50	159	54	41	151	93	15	9.4	5.3	8.1	16
12	1.7	56	140	44	34	195	67	14	8.2	5.1	7.8	16
13	1.7	40	125	35	29	142	54	15	9.4	4.8	7.6	15
14	1.7	30	134	28	36	103	45	14	9.8	4.6	7.6	15
15	1.7	26	179	81	43	78	41	16	8.2	4.3	7.6	15
16	1.7	46	224	137	40	61	42	32	7.9	4.3	7.6	15
17	2.0	29	177	139	30	49	44	22	7.9	4.2	7.6	14
18	3.0	49	146	109	27	42	39	20	9.1	4.1	7.6	14
19	5.0	38	129	127	22	37	36	19	8.5	4.1	7.3	14
20	8.0	37	114	97	19	33	36	17	8.2	4.0	9.5	14
21	15	34	95	74	16	29	35	17	7.9	3.9	12	14
22	25	34	46	70	16	55	37	16	7.6	3.9	12	13
23	90	44	34	78	18	93	35	15	7.6	4.4	12	13
24	40	110	29	109	46	116	30	15	9.4	4.9	11	13
25	35	96	23	205	54	96	27	16	14	4.8	11	13
26	27	72	17	146	47	133	26	16	9.4	4.8	11	13
27	22	85	15	93	41	121	26	15	8.8	4.7	11	15
28	17	75	28	67	32	105	25	13	8.5	4.6	11	20
29	16	65	80	92	------	113	23	12	8.2	4.6	11	22
30	12	55	200	48	------	121	23	12	8.2	4.7	11	20
31	10	------	180	46	------	98	------	12	------	4.8	13	------
TOTAL	497.2	1,210.8	3,562	2,488	936	2,287	1,464	518	288.2	162.7	265.9	485
MEAN	16.0	40.4	115	80.3	33.4	73.8	48.8	16.7	9.61	5.25	8.58	16.2
MAX	90	110	271	205	54	195	129	32	14	8.8	13	25
MIN	1.7	8.0	15	23	16	21	23	12	7.6	3.9	4.7	13
AC-FT	986	2,400	7,070	4,930	1,860	4,540	2,900	1,030	572	323	527	962
MEAN†	25.0	50.2	125	90.1	50.8	74.0	47.6	15.6	8.60	3.92	2.47	4.23
CFSM†	4.05	8.12	20.2	14.6	8.22	12.0	7.70	2.52	1.39	.63	.40	.68
IN.†	4.67	9.07	23.31	16.81	8.56	13.80	8.59	2.91	1.55	.73	.46	.76
AC-FT†	1,540	2,990	7,680	5,540	2,820	4,550	2,830	960	512	241	152	252

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX 321 MIN 1.7 AC-FT 28,070 MEAN† 43.0 CFSM† 6.96 IN.† 94.46 AC-FT† 31,130
WTR YR 1971 TOTAL 14,164.8 MEAN 38.8 MAX 271 MIN 1.7 AC-FT 28,100 MEAN† 41.5 CFSM† 6.72 IN.† 91.23 AC-FT† 30,070

PEAK DISCHARGE (BASE, 230 CFS).--Dec. 7 (time unknown) 321 cfs (6.62 ft); Dec. 30 (time unknown) 286 cfs (6.64 ft).

† Adjusted for storage and diversion.

NOTE.--No gage-height record Oct. 13 to Nov. 16.

14303600 Nestucca River near Beaver, Oreg.

LOCATION.--Lat 45°16'00", long 123°50'45", in SE¼NE¼ sec.36, T.3 S., R.10 W., Tillamook County, on right bank 150 ft upstream from Saling Creek, 1.2 miles southwest of Beaver, and at mile 13.5.

DRAINAGE AREA.--180 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 43 ft (from river profile map).

AVERAGE DISCHARGE.--7 years, 1,102 cfs (83.14 inches per year, 798,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,900 cfs Jan. 25 (gage height, 14.97 ft); minimum, 74 cfs Oct. 16, 17.

Period of record: Maximum discharge, 24,000 cfs Jan. 28, 1965 (gage height, 19.53 ft, from floodmark); minimum, 32 cfs Sept. 14, 1967.

Flood of Nov. 20, 1962, reached a stage of 23.4 ft (discharge, 32,500 cf), caused by failure of Meadow Lake Dam.

REMARKS.--Records excellent. No regulation. Small diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	326	2,080	4,670	1,860	1,600	2,510	596	374	325	155	602
2	100	299	1,950	3,240	1,640	1,640	2,200	572	363	305	148	1,910
3	94	274	2,630	2,560	1,460	1,910	1,900	548	347	290	145	1,040
4	94	286	2,450	2,110	2,130	1,840	1,660	536	330	276	142	644
5	105	353	2,940	1,760	1,810	1,670	1,510	518	315	271	142	560
6	119	485	8,140	1,500	1,610	1,750	1,410	494	310	267	135	482
7	105	480	9,670	1,330	1,450	2,000	1,310	464	310	253	132	402
8	94	844	5,780	1,670	1,310	2,060	1,640	446	295	249	129	358
9	122	820	3,670	3,690	1,430	1,970	2,760	429	280	330	125	330
10	156	718	3,160	4,370	2,460	4,230	3,050	413	300	347	122	310
11	113	1,760	3,090	3,490	2,180	6,530	2,670	391	290	369	122	305
12	97	2,000	2,630	2,780	1,950	7,600	2,280	380	271	315	116	276
13	89	1,520	2,270	2,330	1,730	5,640	2,000	396	325	285	116	258
14	81	1,180	2,410	2,350	1,760	4,180	1,750	385	380	262	116	244
15	76	1,240	3,500	4,520	1,990	3,270	1,580	396	305	249	113	231
16	74	1,440	5,180	7,380	2,050	2,670	1,420	1,030	280	235	110	218
17	74	1,230	4,820	8,270	1,880	2,250	1,320	734	267	226	108	201
18	143	1,460	3,420	6,000	1,840	1,930	1,170	638	305	218	108	196
19	165	1,410	2,630	6,740	1,730	1,700	1,360	629	325	235	105	192
20	299	1,350	2,380	5,560	1,550	1,520	1,370	626	300	201	110	188
21	558	1,220	1,990	4,310	1,630	1,380	929	584	280	188	119	188
22	922	1,180	1,670	4,110	1,550	1,630	873	542	267	181	145	177
23	1,730	1,460	1,440	6,360	1,470	2,410	873	512	280	177	132	174
24	1,210	3,970	1,270	6,890	2,300	3,330	838	482	310	174	116	181
25	1,180	3,410	1,140	13,700	2,360	2,560	775	488	775	172	110	235
26	971	2,920	1,063	10,600	[illegible]	3,090	734	482	548	166	108	262
27	736	3,360	1,360	6,000	2,270	3,790	716	446	464	162	125	229
28	565	2,920	1,630	3,970	1,830	3,110	686	419	424	166	105	316
29	485	2,360	2,320	7,880	-------	3,180	650	402	305	159	105	692
30	623	2,210	8,630	7,680	-------	3,270	620	402	347	159	107	548
31	367	-------	8,730	2,160	-------	2,910	-------	383	-------	159	192	-------
TOTAL	11,666	66,185	[illegible]	[illegible]	[illegible]	87,820	43,916	15,750	10,347	7,336	3,838	11,869
MEAN	376	[illegible]	3,433	4,485	1,813	2,833	1,464	508	345	237	124	396
MAX	1,730	3,970	9,670	13,700	2,460	7,600	3,050	1,030	775	369	192	1,910
MIN	74	274	1,063	1,330	1,310	1,380	620	383	267	159	105	174
CFSM	2.09	[illegible]	19.1	24.9	10.1	15.7	8.13	2.82	1.92	1.32	.69	2.20
IN.	2.41	[illegible]	21.99	28.72	[illegible]	18.15	9.08	3.26	2.14	1.52	.79	2.45
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	174,200	87,100	31,240	20,520	14,550	7,610	23,540

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX 13,700 MIN 74 CFSM [illegible] IN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, [illegible] CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

14305500 Siletz River at Siletz, Oreg.

LOCATION.--Lat 44°42'55", long 123°53'10", in NW¼SW¼ sec.11, T.10 S., R.10 W., Lincoln County, on right bank, 1.8 miles downstream from Baker Creek, 1.5 miles east of Siletz, and at mile 42.6.

DRAINAGE AREA.--202 sq mi.

PERIOD OF RECORD.--October 1905 to November 1911, January to May 1912, January to June 1924, November 1924 to current year. Prior to December 1905 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 102.32 ft above mean sea level. Oct. 1, 1905, to Sept. 30, 1938, nonrecording gages at various sites within 2.5 miles downstream at different datums.

AVERAGE DISCHARGE.--52 years (1905-11, 1925-71), 1,579 cfs (106.15 inches per year, 1,144,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,100 cfs Jan. 16 (gage height, 17.39 ft); minimum, 76 cfs Oct. 15-17.
Period of record: 1905-12, 1924-38. Maximum discharge, 34,600 cfs Nov. 22, 1909 (gage height, 24.6 ft, site and datum then in use); minimum observed, 51 cfs Dec. 6, 7, 1929.
Period of record: 1938-71. Maximum discharge, 32,200 cfs Jan. 28, 1965 (gage height, 27.32 ft, present site and datum); minimum, 48 cfs Sept. 25, 26, Oct. 4, 1965, Sept. 28, 29, 1967.
Flood of Nov. 20, 1921, reached a stage of 31.6 ft, at site 2.5 miles downstream at different datum, from floodmark (discharge, 40,800 cfs), from rating curve extended above 17,000 cfs.

REMARKS.--Records excellent. Slight regulation from logponds. Small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1935: 1943, 1947-49(M), 1953-58(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	426	2,660	5,780	1,770	1,690	2,870	811	390	529	176	649
2	95	390	2,600	3,710	1,550	1,820	2,470	787	377	485	168	1,740
3	91	354	3,480	2,740	1,360	2,780	2,090	783	359	451	163	1,080
4	89	350	3,470	2,150	2,310	2,850	1,830	774	345	424	161	685
5	95	381	4,730	1,790	2,110	2,380	1,650	731	329	403	160	553
6	102	535	10,200	1,530	1,800	2,160	1,560	674	321	385	154	487
7	96	530	11,200	1,360	1,570	2,390	1,450	637	321	366	149	400
8	89	952	6,680	1,560	1,400	2,560	2,040	620	309	344	144	353
9	91	994	4,290	3,470	1,470	2,320	5,500	589	291	405	139	321
10	102	922	3,470	4,910	3,900	7,000	5,770	569	317	397	136	295
11	95	2,100	3,600	4,310	3,100	9,700	4,530	519	313	414	133	299
12	87	2,710	2,830	3,330	2,460	9,440	3,600	503	284	373	128	271
13	84	1,900	2,400	2,670	2,080	6,200	2,980	519	317	360	125	249
14	80	1,430	2,430	2,290	2,140	4,720	2,460	488	467	318	125	233
15	76	1,590	3,660	8,050	2,600	3,860	2,110	501	363	301	123	216
16	76	3,920	6,440	14,100	2,600	3,130	1,890	1,170	333	288	119	201
17	76	2,970	5,260	14,000	2,250	2,580	1,860	964	309	272	117	181
18	204	2,530	3,710	12,000	2,170	2,190	1,630	868	359	259	114	172
19	235	2,100	2,8[illegible]	11,400	2,070	1,860	1,450	798	413	250	112	171
20	529	1,820	2,540	7,890	1,850	1,660	1,300	724	301	240	120	160
21	750	1,500	2,130	5,150	1,600	1,500	1,250	664	356	220	151	164
22	1,130	1,420	1,820	4,360	1,850	1,900	1,150	604	333	217	172	157
23	3,190	2,410	1,590	5,630	1,740	3,710	1,150	555	377	211	192	155
24	2,200	9,300	1,410	6,560	2,620	4,550	1,100	520	363	208	126	163
25	1,510	8,000	1,260	13,100	2,950	5,330	1,040	525	1,500	201	116	236
26	1,180	[illegible]	1,160	10,900	2,410	4,000	1,010	[illegible]	1,130	194	112	318
27	916	[illegible]	1,220	[illegible]	2,290	[illegible]	1,010	495	695	191	109	231
28	760	[illegible]	1,960	[illegible]	1,670	[illegible]	966	[illegible]	717	191	109	312
29	622	[illegible]	[illegible]	[illegible]	-------	[illegible]	900	[illegible]	[illegible]	186	110	470
30	560	[illegible]	[illegible]	[illegible]	-------	[illegible]	850	[illegible]	[illegible]	183	107	[illegible]
31	476	-------	11,200	[illegible]	-------	[illegible]	-------	[illegible]	-------	183	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1970 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1971 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

PEAK DISCHARGE (BASE, [illegible] CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

14306036 Mill Creek near Toledo, Oreg.

LOCATION.--Lat 44°34'35", long 123°54'25", in NW¼NE¼ sec.33, T.11 S., R.10 W., Lincoln County, on left bank 1,200 ft downstream from diversion dam, and 3.5 miles southeast of Toledo.

DRAINAGE AREA.--4.18 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (from topographic map). Prior to July 13, 1968, at site 1,200 ft upstream at different datum.

AVERAGE DISCHARGE.--12 years, 21.2 cfs (68.87 inches per year, 15,360 acre-ft per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 362 cfs Dec. 30 (gage height, 4.59 ft); minimum, 0.04 cfs Oct. 1.
Period of record: Maximum discharge, 609 cfs Jan. 27, 1965 (gage height, 5.83 ft, site and datum then in use), from rating curve extended above 65 cfs on basis of slope-area measurement of peak flow; no flow Sept. 27, Oct. 3, 4, 1961, Sept. 26, 1962.

REMARKS.--Records good except those for period of backwater from beaver dams, which are poor. Monthly figures only are adjusted for diversion for city of Toledo municipal supply. Occasional fluctuation caused by city of Toledo diversion dam 1,200 ft upstream (capacity, 250 acre-ft). See list of measurements at miscellaneous sites for result of measurement on Mill Creek tributary.

COOPERATION.--Record of monthly diversion furnished by city of Toledo.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.78	39	114	24	28	31	12	4.2	6.6	2.4	5.0
2	.66	.78	45	72	20	29	27	11	4.2	6.0	2.3	13
3	.66	.72	105	50	18	48	24	10	4.5	5.6	2.3	12
4	.78	.78	83	39	42	51	21	9.6	4.2	5.2	2.2	8.5
5	.94	.78	53	32	40	43	19	8.8	4.2	4.8	2.2	6.5
6	.85	.78	44	27	29	38	17	8.3	3.9	4.2	2.1	5.5
7	.78	.85	65	23	24	35	16	8.6	3.9	3.8	2.1	4.5
8	.72	.94	46	26	21	33	25	8.3	3.9	4.1	2.1	4.2
9	.85	.94	32	84	21	32	140	8.1	3.6	4.2	2.0	4.0
10	.94	.94	26	116	27	62	119	7.8	3.8	4.4	2.0	3.7
11	.85	1.4	22	100	25	92	105	8.1	3.8	4.1	2.0	3.4
12	.72	1.4	18	74	23	93	88	8.1	3.8	3.9	1.9	3.2
13	.52	1.6	16	56	21	88	62	8.1	3.8	3.8	1.9	3.1
14	.72	1.7	18	49	24	77	45	8.1	4.4	3.7	1.9	3.0
15	.78	2.0	33	156	32	65	36	8.1	3.9	3.6	1.9	2.9
16	.78	19	66	182	33	51	29	8.3	3.6	3.5	1.9	2.8
17	.85	23	47	168	30	41	29	7.8	3.2	3.4	1.9	2.7
18	2.8	17	33	122	26	33	27	7.6	3.6	3.4	1.8	2.7
19	1.4	13	24	164	25	28	23	8.1	3.8	3.3	1.8	2.6
20	2.0	11	25	144	24	24	22	6.0	3.5	3.2	2.3	2.5
21	4.7	10	22	91	22	21	21	3.0	3.3	3.1	3.0	2.4
22	6.0	9.3	17	73	22	21	20	2.8	3.2	3.0	2.9	2.3
23	16	28	13	132	21	23	19	3.2	3.6	2.9	2.2	2.5
24	11	122	11	146	24	35	18	2.9	3.8	2.9	1.7	2.8
25	9.3	72	9.3	204	29	33	17	2.9	17	2.8	1.7	4.5
26	3.5	61	7.7	164	29	39	16	3.2	17	2.7	1.6	3.5
27	.66	78	8.9	101	36	47	15	2.9	12	2.7	1.6	2.8
28	.72	53	33	65	31	42	14	3.0	9.3	2.6	1.6	3.7
29	.72	34	57	46	------	36	13	3.3	8.3	2.5	1.5	5.0
30	.52	32	172	36	------	37	12	3.3	7.3	2.5	1.5	4.0
31	.78	------	172	29	------	36	------	3.9	------	2.4	2.5	------
TOTAL	73.06	598.69	1,362.9	2,885	743	1,361	1,070	205.2	162.6	114.9	62.8	129.3
MEAN	2.36	20.0	44.0	93.1	26.5	43.9	35.7	6.62	5.42	3.71	2.03	4.31
MAX	16	122	172	204	42	93	140	12	17	6.6	3.0	13
MIN	.52	.72	7.7	23	18	21	12	2.8	3.2	2.4	1.5	2.3
AC-FT	145	1,190	2,700	5,720	1,470	2,700	2,120	407	323	228	125	256
MEAN†	2.41	20.0	44.1	93.2	26.5	43.9	35.6	6.70	5.53	3.90	2.11	4.30
CFSM†	0.58	4.78	10.6	22.3	6.34	10.5	8.52	1.60	1.32	.93	.50	1.03
IN.†	0.66	5.34	12.16	25.71	6.60	12.11	9.51	1.85	1.48	1.08	.58	1.15
AC-FT†	148	1,190	2,710	5,730	1,470	2,700	2,120	412	329	240	130	256

CAL YR 1970 TOTAL 8,214.09 MEAN 22.5 MAX 240 MIN .52 AC-FT 16,290 MEAN† 22.7 CFSM† 5.43 IN.† 73.67 AC-FT† 16,420
WTR YR 1971 TOTAL 8,768.45 MEAN 24.0 MAX 204 MIN .52 AC-FT 17,390 MEAN† 24.1 CFSM† 5.77 IN.† 78.30 AC-FT† 17,450

PEAK DISCHARGE (BASE, 250 CFS).--Dec. 30 (1900) 362 cfs (4.59 ft).

†Adjusted for diversion to city of Toledo.
NOTE.--Backwater from beaver dams July 13 to Sept. 30.

14306100 North Fork Alsea River at Alsea, Oreg.

LOCATION.--Lat 44°22'45", long 123°35'40", in SE¼ sec.1, T.14 S., R.8 W., Benton County, on left bank at Alsea, 0.2 mile upstream from bridge on Lobster Valley Road, 0.7 mile upstream from confluence with South Fork, and at mile 49.4.

DRAINAGE AREA.--63.0 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.31 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 288 cfs (62.08 inches per year, 208,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,480 cfs Jan. 16 (gage height, 9.19 ft); minimum, 14 cfs Oct. 15, 16.
Period of record: Maximum discharge, 14,100 cfs Dec. 22, 1964 (gage height, 14.57 ft), from rating curve extended above 2,900 cfs on basis of slope-area measurement at gage height 11.80 ft; minimum, 12 cfs Sept. 25, Oct. 2, 1965.

REMARKS.--Records good. No regulation. Some diversions by pumping above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	61	519	1,190	369	313	566	175	104	68	34	158
2	17	58	473	802	324	329	464	168	99	64	32	272
3	16	55	999	599	290	602	390	162	93	61	30	114
4	17	57	849	465	551	681	340	157	90	60	31	70
5	17	70	1,030	381	503	541	308	150	86	58	31	57
6	20	106	1,530	324	396	488	284	143	84	55	31	52
7	20	98	1,930	291	337	602	254	136	83	53	30	46
8	18	140	1,210	288	301	691	360	131	80	50	30	41
9	17	143	771	445	297	599	1,390	125	78	52	29	40
10	19	133	604	648	437	1,410	1,370	119	85	54	28	38
11	18	345	565	723	376	2,170	1,240	115	77	53	28	37
12	17	370	444	576	331	2,570	1,040	113	74	48	26	35
13	17	233	376	459	294	1,690	807	112	82	46	27	33
14	16	170	435	407	326	1,300	646	106	86	43	28	31
15	15	165	829	2,620	443	1,040	523	112	77	41	28	30
16	15	312	1,860	4,140	476	818	447	201	72	40	28	29
17	16	242	1,320	3,320	399	656	467	154	69	39	25	28
18	28	206	849	2,250	392	536	426	134	77	39	24	27
19	29	185	608	2,150	377	452	378	123	72	37	24	27
20	38	179	535	1,610	340	405	349	119	67	35	26	27
21	86	173	448	1,160	315	370	311	115	65	34	29	26
22	148	182	370	930	310	482	291	107	63	35	32	25
23	332	560	321	949	293	752	273	102	65	35	28	25
24	233	1,730	285	997	435	842	259	97	66	36	24	28
25	176	1,170	259	1,860	532	668	244	100	221	36	23	35
26	148	784	246	1,460	474	920	232	138	140	35	22	39
27	108	1,070	254	1,030	419	920	220	122	106	34	23	34
28	88	764	688	780	362	854	207	111	92	34	26	54
29	77	489	1,260	619	------	806	194	104	82	34	25	82
30	71	477	2,250	511	------	776	183	104	73	34	24	67
31	65	------	2,210	431	------	686	------	100	------	33	73	------
TOTAL	1,919	10,727	26,327	34,415	10,699	25,969	14,463	3,955	2,608	1,376	899	1,607
MEAN	61.9	358	849	1,110	382	838	482	128	86.9	44.4	29.0	53.6
MAX	332	1,730	2,250	4,140	551	2,570	1,390	201	221	68	73	272
MIN	15	55	246	288	290	313	183	97	63	33	22	25
CFSM	.98	5.68	13.5	17.6	6.06	13.3	7.65	2.03	1.38	.70	.46	.85
IN.	1.13	6.33	15.55	20.32	6.32	15.33	8.54	2.34	1.54	.81	.53	.95
AC-FT	3,810	21,280	52,220	68,260	21,220	51,510	28,690	7,840	5,170	2,730	1,780	3,190

CAL YR 1970 TOTAL 120,992 MEAN 331 MAX 3,120 MIN 15 CFSM 5.25 IN 71.44 AC-FT 240,000
WTR YR 1971 TOTAL 134,964 MEAN 370 MAX 4,140 MIN 15 CFSM 5.87 IN 79.69 AC-FT 267,700

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0700	5.73	2,270	1-16	2100	9.19	5,480
12-16	1200	5.42	2,050	1-25	1130	5.40	2,040
12-30	1900	7.40	3,660	3-11	2330	6.94	3,250

14306400 Five Rivers near Fisher, Oreg.

LOCATION.--Lat 44°20'15", long 123°49'35", W½ sec.19, T.14 S., R.9 W., Lincoln County, Siuslaw National Forest, on left bank at downstream side of abandoned highway bridge, 500 ft downstream from Lobster Creek, 3.2 miles north of Fisher, and at mile 3.3.

DRAINAGE AREA.--114 sq mi.

PERIOD OF RECORD.--August 1958 to September 1963, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 574 cfs (68.38 inches per year, 415,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,220 cfs Jan. 15 (gage height, 15.40 ft); minimum, 22 cfs Oct. 15-17.
Period of record: Maximum discharge, 15,700 cfs Nov. 24, 1960 (gage height, 20.06 ft); minimum, 16 cfs Oct. 1, 1967.
Flood of Dec. 22, 1964 reached a stage of 22.3 ft, from floodmarks (discharge, 19,000 cfs), from rating curve extended above 10,000 cfs.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1718: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	66	1,300	2,600	700	711	1,080	346	150	120	60	328
2	24	61	1,400	1,720	623	787	928	327	146	112	58	444
3	24	58	2,880	1,280	560	1,570	800	310	139	105	57	229
4	24	62	2,300	1,030	776	1,740	707	296	134	101	53	136
5	24	104	1,890	853	738	1,370	633	283	127	99	51	106
6	27	196	2,150	733	634	1,170	576	268	124	95	49	93
7	28	173	3,390	650	566	1,260	525	253	124	91	47	80
8	26	244	2,230	648	515	1,340	802	241	120	89	46	73
9	25	286	1,520	833	490	1,130	3,550	229	115	97	44	68
10	25	257	1,210	1,110	565	2,390	3,130	218	129	104	43	64
11	25	544	1,070	1,420	512	3,820	2,360	209	117	98	42	64
12	24	660	899	1,170	481	4,370	1,830	201	110	89	42	61
13	24	408	784	982	448	3,390	1,420	206	122	84	41	58
14	24	294	869	948	535	2,600	1,140	193	131	80	42	56
15	22	293	1,630	6,640	781	2,000	955	205	112	79	41	54
16	22	684	3,340	6,960	838	1,560	828	351	104	76	40	51
17	23	507	2,360	5,540	712	1,230	913	260	100	74	39	46
18	62	402	1,590	3,790	663	1,030	819	225	117	71	38	44
19	55	346	1,190	3,580	637	877	718	207	116	70	38	44
20	59	322	1,220	2,920	584	766	682	197	104	69	39	44
21	187	300	1,160	2,050	551	680	608	189	99	67	51	42
22	222	308	979	1,690	552	707	570	176	94	65	56	42
23	596	974	827	1,750	512	849	559	169	100	64	47	42
24	330	4,020	717	1,710	629	999	545	162	100	65	42	43
25	278	3,350	639	2,640	761	899	511	171	436	63	39	52
26	255	1,890	587	2,280	781	1,470	474	200	267	62	37	69
27	162	2,220	606	1,710	824	1,730	440	180	190	61	37	55
28	117	1,590	1,420	1,340	790	1,800	411	164	160	63	41	98
29	94	1,120	2,400	1,100	------	1,540	387	157	142	62	41	143
30	81	1,080	4,810	932	------	1,420	366	155	129	64	39	108
31	72	------	5,490	799	------	1,250	------	150	------	60	109	------
TOTAL	2,986	22,819	54,857	63,408	17,758	48,455	29,267	6,898	4,158	2,499	1,449	2,837
MEAN	96.3	761	1,770	2,045	634	1,563	976	223	139	80.6	46.7	94.6
MAX	596	4,020	5,490	6,960	838	4,370	3,550	351	436	120	109	444
MIN	22	58	587	648	448	680	366	150	94	60	37	42
CFSM	.84	6.68	15.5	17.9	5.56	13.7	8.56	1.96	1.22	.71	.41	.83
IN.	.97	7.45	17.90	20.69	5.79	15.81	9.55	2.25	1.36	.82	.47	.93
AC-FT	5,920	45,260	108,800	125,800	35,220	96,110	58,050	13,680	8,250	4,960	2,870	5,630

CAL YR 1970 TOTAL 240,604 MEAN 659 MAX 7,000 MIN 22 CFSM 5.78 IN 78.51 AC-FT 477,200
WTR YR 1971 TOTAL 257,391 MEAN 705 MAX 6,960 MIN 22 CFSM 6.18 IN 83.99 AC-FT 510,500

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0630	11.09	4,720	1-15	1700	15.40	9,220
12- 3	1500	10.78	4,440	3-12	0130	11.67	5,240
12-30	2230	15.08	8,830	4- 9	1730	11.82	5,380

14306500 Alsea River near Tidewater, Oreg.

LOCATION.--Lat 44°23'10", long 123°49'50", in NW¼NW¼ sec.6, T.14 S., R.9 W., Lincoln County, on right bank 0.9 mile downstream from Grass Creek, 2.5 miles upstream from Scott Creek, 3.8 miles southeast of Tidewater, and at mile 21.0.

DRAINAGE AREA.--334 sq mi.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.16 ft above mean sea level. Prior to Nov. 16, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--32 years, 1,546 cfs (62.86 inches per year, 1,120,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,000 cfs Jan. 17 (gage height, 18.88 ft); minimum, 62 cfs Oct. 16, 17.
Period of record: Maximum discharge, 41,800 cfs Dec. 22, 1964 (gage height, 27.44 ft); minimum, 45 cfs Sept. 26, 27, 1965.
Flood on or about Feb. 3, 1890, reached a stage of 29.5 ft, from floodmark shown by old resident (discharge not determined).

REMARKS.--Records excellent. No regulation. Diversion for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	175	3,020	7,200	2,060	1,920	3,020	959	468	356	151	731
2	68	162	3,190	4,770	1,840	1,930	2,590	914	465	337	148	1,300
3	67	153	5,960	3,580	1,640	3,530	2,240	872	442	317	143	751
4	64	155	5,690	2,840	2,320	4,330	1,990	837	426	301	138	421
5	66	224	4,570	2,350	2,380	3,480	1,800	804	406	296	140	312
6	70	451	5,890	2,020	1,990	2,990	1,650	770	393	285	140	275
7	73	431	8,970	1,800	1,750	3,160	1,520	728	390	272	135	232
8	72	546	6,220	1,750	1,580	3,640	1,870	692	380	262	131	209
9	71	614	4,150	2,320	1,490	3,100	7,760	663	363	273	128	194
10	70	593	3,210	3,040	1,870	5,520	8,320	634	397	289	123	181
11	72	1,100	2,940	3,950	1,710	10,000	6,490	609	377	284	120	176
12	71	1,690	2,430	3,330	1,560	12,700	5,330	585	349	261	117	169
13	69	1,040	2,120	2,730	1,440	9,330	4,110	597	373	243	114	160
14	66	731	2,170	2,410	1,520	7,080	3,310	568	408	231	115	152
15	64	636	3,730	13,000	2,160	5,580	2,740	571	362	223	117	145
16	63	1,390	8,890	18,700	2,330	4,350	2,360	946	335	215	113	140
17	62	1,190	6,820	17,000	2,050	3,530	2,500	804	320	208	112	131
18	114	941	4,490	11,800	1,910	2,930	2,290	681	346	201	108	125
19	158	821	3,340	10,600	1,890	2,500	2,030	622	362	197	107	123
20	149	765	3,110	8,870	1,730	2,210	1,900	586	327	190	106	123
21	316	732	2,890	6,160	1,620	1,990	1,710	574	310	182	123	121
22	535	703	2,430	4,900	1,600	2,110	1,590	536	292	173	143	118
23	1,240	1,760	2,090	4,970	1,520	2,690	1,530	510	300	169	138	116
24	923	8,070	1,830	4,850	1,800	3,300	1,470	489	303	168	119	119
25	688	7,450	1,640	8,030	2,320	2,820	1,380	503	986	167	107	140
26	642	4,210	1,520	7,330	2,280	4,070	1,290	595	788	164	102	190
27	428	5,210	1,530	5,160	2,320	4,620	1,210	586	564	159	100	169
28	313	3,960	3,070	3,990	2,150	4,660	1,140	519	477	158	107	220
29	248	2,720	6,580	3,250	------	4,120	1,070	492	427	156	112	411
30	213	2,520	10,300	2,710	------	3,870	1,010	484	386	157	108	377
31	191	------	14,400	2,340	------	3,530	------	472	------	156	198	------
TOTAL	7,314	51,143	139,190	177,750	52,830	131,590	79,220	20,202	12,522	7,050	3,863	8,031
MEAN	236	1,705	4,490	5,734	1,887	4,245	2,641	652	417	227	125	268
MAX	1,240	8,070	14,400	18,700	2,380	12,700	8,320	959	986	356	198	1,300
MIN	62	153	1,520	1,750	1,440	1,920	1,010	472	292	156	100	116
CFSM	.71	5.10	13.4	17.2	5.65	12.7	7.91	1.95	1.25	.68	.37	.80
IN.	.81	5.70	15.50	19.80	5.88	14.66	8.82	2.25	1.39	.79	.43	.89
AC-FT	14,510	101,400	276,100	352,600	104,800	261,000	157,100	40,070	24,840	13,980	7,660	15,930

CAL YR 1970 TOTAL 617,064 MEAN 1,691 MAX 17,100 MIN 62 CFSM 5.06 IN 68.73 AC-FT 1,224,000
WTR YR 1971 TOTAL 690,705 MEAN 1,892 MAX 18,700 MIN 62 CFSM 5.66 IN 76.93 AC-FT 1,370,000

PEAK DISCHARGE (BASE, 13,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0130	18.26	19,800	3-12	0400	15.36	14,300
1-17	0130	18.88	21,000				

14306700 Needle Branch near Salado, Oreg.

LOCATION.--Lat 44°30'35", long 123°51'20", in SW¼ sec.24, T.12 S., R.10 W., Lincoln County, on right bank 500 ft upstream from mouth, 4.6 miles west of Salado, and 8.5 miles southeast of Toledo.

DRAINAGE AREA.--0.27 sq mi (computed as 174.64 acres on basis of field survey by Oregon State University).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 440 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 1.61 cfs (80.98 inches per year, 1,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 31 cfs Dec. 30, Jan. 15 (gage height, 2.83 ft); minimum, 0.01 cfs Aug. 26.
Period of record: Maximum discharge, 50 cfs Jan. 28, 1965 (gage height, 3.31 ft); minimum, 0.01 cfs Sept. 8, 9, 1962, Sept. 18 to Oct. 3, 1965, Aug. 17, Sept. 14, 23-28, 1967, many days in August and September 1970, Aug. 26, 1971.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1718: 1959. WSP 1935: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.41	4.4	6.2	1.2	2.4	2.4	.81	.35	.38	.10	.54
2	.03	.39	4.7	3.9	1.0	3.2	2.0	.74	.32	.36	.10	1.2
3	.03	.36	11	2.8	.88	6.6	1.6	.71	.31	.34	.09	.31
4	.03	.42	7.3	2.1	3.8	6.0	1.3	.65	.29	.33	.10	.20
5	.05	.46	4.8	1.6	3.3	4.3	1.1	.60	.28	.32	.08	.21
6	.04	.64	4.5	1.3	2.4	3.4	.98	.57	.29	.31	.08	.17
7	.04	.59	8.3	1.2	1.9	3.1	.86	.52	.30	.29	.08	.12
8	.03	.69	5.5	1.6	1.5	3.1	1.7	.49	.27	.28	.07	.12
9	.04	.97	3.8	5.3	1.9	2.8	15	.47	.27	.31	.06	.12
10	.04	1.2	3.1	8.5	2.8	5.5	11	.44	.30	.31	.06	.10
11	.04	3.1	2.6	8.3	2.5	9.0	8.1	.42	.26	.28	.05	.12
12	.03	3.5	2.4	5.2	2.1	8.8	5.9	.41	.25	.25	.05	.09
13	.03	2.3	2.1	3.7	1.7	6.7	4.1	.40	.30	.24	.07	.09
14	.03	1.7	2.8	3.8	2.2	5.4	2.9	.37	.27	.21	.06	.08
15	.02	2.0	6.2	26	2.7	4.5	2.2	.59	.23	.20	.05	.08
16	.03	3.8	9.8	17	2.8	3.5	1.8	.73	.21	.19	.04	.07
17	.04	3.3	6.3	11	2.3	2.7	1.9	.50	.20	.18	.04	.06
18	.30	2.9	4.2	7.4	2.3	2.1	1.6	.45	.25	.17	.04	.05
19	.12	2.3	3.0	14	2.2	1.6	1.5	.44	.21	.16	.04	.06
20	.27	2.1	2.9	8.5	2.1	1.3	1.7	.43	.20	.16	.06	.06
21	.78	1.8	2.5	5.0	1.9	1.1	1.4	.40	.19	.14	.08	.05
22	.97	1.8	2.2	4.4	1.8	1.3	1.4	.38	.20	.15	.08	.06
23	1.9	4.3	1.9	7.6	1.6	1.9	1.4	.36	.23	.15	.05	.07
24	2.1	14	1.6	9.6	2.7	3.2	1.3	.36	.57	.14	.04	.08
25	2.0	7.5	1.4	19	3.2	2.9	1.3	.40	1.5	.13	.04	.22
26	1.5	6.0	1.3	9.6	3.3	4.4	1.2	.47	.81	.13	.03	.13
27	1.0	8.8	1.6	5.2	3.6	4.6	1.1	.38	.63	.14	.04	.09
28	.74	6.2	4.9	3.4	3.0	3.9	1.0	.36	.55	.12	.04	.28
29	.61	4.1	7.8	2.4	------	3.2	.92	.36	.48	.13	.04	.39
30	.53	3.8	18	1.8	------	2.9	.84	.38	.41	.13	.04	.24
31	.46	------	15	1.5	------	2.7	------	.35	------	.11	.21	------
TOTAL	13.86	91.43	157.9	208.9	64.68	118.1	81.50	14.94	10.93	6.74	2.01	5.46
MEAN	.45	3.05	5.09	6.74	2.31	3.81	2.72	.48	.36	.22	.065	.18
MAX	2.1	14	18	26	3.8	9.0	15	.81	1.5	.38	.21	1.2
MIN	.02	.36	1.3	1.2	.88	1.1	.84	.35	.19	.11	.03	.05
CFSM	1.67	11.3	18.9	25.0	8.56	14.1	10.1	1.78	1.33	.81	.24	.67
IN.	1.91	12.60	21.76	28.76	8.91	16.27	11.23	2.06	1.51	.93	.28	.75
AC-FT	27	181	313	414	128	234	162	30	22	13	4.0	11

CAL YR 1970 TOTAL 673.43 MEAN 1.85 MAX 21 MIN .01 CFSM 6.85 IN 92.78 AC-FT 1,340
WTR YR 1971 TOTAL 776.45 MEAN 2.13 MAX 26 MIN .02 CFSM 7.89 IN 106.98 AC-FT 1,540

PEAK DISCHARGE (BASE, 15 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0215	2.57	21	1-25	0900	2.59	22
12-30	1930	2.83	31	4- 9	1545	2.66	24
1-15	0830	2.83	31				

14306800 Flynn Creek near Salado, Oreg.

LOCATION.--Lat 44°32'20", long 123°51'05", in SW¼ sec.12, T.12 S., R.10 W., Lincoln County, on right bank 1,000 ft upstream from mouth, 3.4 miles west of Salado, and 6.9 miles southeast of Toledo.

DRAINAGE AREA.--0.78 sq mi (computed as 501.96 acres on basis of field survey by Oregon State University).

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 685 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 4.35 cfs (75.73 inches per year, 3,150 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 58 cfs Dec. 30 (gage height, 4.09 ft); minimum, 0.13 cfs Oct. 15.
Period of record: Maximum discharge, 137 cfs Jan. 28, 1965 (gage height, 4.72 ft); minimum, 0.07 cfs Sept. 27, 1967.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.60	8.0	17	5.1	5.9	6.1	2.6	1.0	1.2	.39	1.7
2	.16	.55	9.2	12	4.4	6.5	5.5	2.3	1.0	1.2	.38	4.1
3	.15	.53	17	8.8	3.9	10	4.8	2.2	.98	1.1	.37	1.3
4	.15	.56	16	8.2	6.8	11	4.2	2.1	.94	1.1	.37	.88
5	.19	.65	12	7.5	6.2	9.6	3.7	2.1	.92	1.0	.36	.83
6	.18	.75	10	4.7	5.4	8.5	3.4	1.9	.90	.99	.34	.70
7	.16	.68	13	4.1	4.9	8.2	3.2	1.8	.90	.94	.33	.61
8	.16	.83	12	4.8	4.5	8.3	4.4	1.7	.85	.93	.32	.56
9	.19	.97	9.5	11	4.7	8.1	19	1.6	.85	.97	.31	.53
10	.18	1.0	7.9	15	4.8	13	22	1.6	.92	.92	.30	.49
11	.17	3.5	6.7	16	4.6	19	18	1.5	.84	.87	.30	.50
12	.16	3.8	5.8	13	4.3	19	16	1.5	.81	.79	.29	.44
13	.15	2.6	5.1	9.8	4.0	16	12	1.4	.96	.76	.29	.41
14	.15	2.1	5.5	8.8	5.0	14	9.5	1.3	.88	.72	.28	.40
15	.14	2.6	8.8	21	5.9	12	7.6	1.7	.79	.69	.27	.38
16	.14	5.1	15	35	6.6	10	6.0	1.7	.73	.66	.26	.35
17	.15	4.2	13	30	6.3	8.6	6.0	1.4	.73	.63	.26	.34
18	.75	3.7	9.8	20	6.1	7.2	5.1	1.3	.85	.60	.25	.32
19	.30	3.2	7.9	25	5.5	5.9	4.6	1.3	.76	.57	.25	.32
20	.55	3.0	7.1	22	5.0	5.0	4.8	1.2	.73	.55	.30	.31
21	1.4	2.7	5.8	15	4.7	4.3	4.4	1.2	.69	.53	.35	.30
22	1.9	2.4	5.0	13	4.7	4.3	4.2	1.1	.72	.51	.39	.28
23	3.5	7.6	4.4	19	4.4	4.9	4.4	1.1	.78	.49	.28	.29
24	2.5	22	3.9	22	5.5	6.5	4.1	1.1	1.6	.48	.25	.32
25	2.2	15	3.5	33	6.2	6.5	3.8	1.1	3.8	.46	.23	.64
26	1.8	12	3.2	25	6.8	7.8	3.5	1.3	2.1	.45	.22	.43
27	1.3	13	3.5	16	7.6	8.6	3.4	1.1	1.8	.44	.23	.34
28	1.0	11	6.5	12	7.0	8.3	3.2	1.1	1.6	.44	.23	.64
29	.88	8.6	10	9.2	------	7.8	2.9	1.1	1.4	.43	.22	.81
30	.76	7.9	30	7.5	------	7.3	2.7	1.1	1.3	.43	.23	.62
31	.66	------	32	6.2	------	6.7	------	1.0	------	.42	.58	------
TOTAL	22.24	143.12	307.1	471.6	150.9	278.8	202.5	46.5	33.13	22.27	9.43	20.14
MEAN	.72	4.77	9.91	15.2	5.39	8.99	6.75	1.50	1.10	.72	.30	.67
MAX	3.5	22	32	35	7.6	19	22	2.6	3.8	1.2	.58	4.1
MIN	.14	.53	3.2	4.1	3.9	4.3	2.7	1.0	.69	.42	.22	.28
CFSM	.92	6.12	12.7	19.5	6.91	11.5	8.65	1.92	1.41	.92	.38	.86
IN.	1.06	6.83	14.65	22.49	7.20	13.30	9.66	2.22	1.58	1.06	.45	.96
AC-FT	44	284	609	935	299	553	402	92	66	44	19	40

CAL YR 1970 TOTAL 1,468.55 MEAN 4.02 MAX 40 MIN .14 CFSM 5.15 IN 70.04 AC-FT 2,910
WTR YR 1971 TOTAL 1,707.73 MEAN 4.68 MAX 35 MIN .14 CFSM 6.00 IN 81.45 AC-FT 3,390

PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-30	1915	4.09	58	1-25	0930	3.86	41
1-16	2015	4.00	51				

14306810 Deer Creek near Salado, Oreg.

LOCATION.--Lat 44°32'05", long 123°52'35", in SW¼ sec.11, T.12 S., R.10 W., Lincoln County, Siuslaw National Forest, on right bank 1,000 ft upstream from mouth, 4.6 miles west of Salado, and 6.5 miles southeast of Toledo.

DRAINAGE AREA.--1.17 sq mi (computed as 749.5 acres on basis of field survey by Oregon State University).

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 600 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 6.47 cfs (75.10 inches per year, 4,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 114 cfs Dec. 30 (gage height, 3.62 ft); minimum, 0.24 cfs, Oct. 14-17.
Period of record: Maximum discharge, 201 cfs Jan. 28, 1965 (gage height, 4.21 ft); minimum, 0.16 cfs Sept. 26, 27, 1967.

REMARKS.--Records excellent. No regulation or diversion above station. Records of water temperatures and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1718: 1959. WSP 1935: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	1.5	12	24	7.3	7.8	8.8	3.7	1.8	2.4	.65	3.1
2	.30	1.3	14	16	6.4	9.7	7.9	3.4	1.8	2.2	.62	8.7
3	.30	1.2	35	12	5.6	20	7.0	3.3	1.7	2.0	.59	3.8
4	.30	1.2	27	9.6	11	20	6.1	3.1	1.6	1.9	.62	2.6
5	.36	1.3	18	8.1	11	14	5.4	3.0	1.6	1.8	.59	2.3
6	.34	1.6	15	7.0	9.0	11	5.0	2.8	1.6	1.6	.56	1.8
7	.32	1.5	22	6.1	7.7	12	4.6	2.6	1.5	1.5	.53	1.6
8	.30	1.9	18	7.7	6.6	12	7.2	2.5	1.5	1.5	.53	1.4
9	.38	2.3	13	23	6.8	11	41	2.4	1.4	1.6	.51	1.3
10	.38	2.5	11	34	7.7	24	36	2.3	1.6	1.5	.51	1.2
11	.34	7.2	9.0	27	7.6	33	26	2.2	1.4	1.4	.48	1.2
12	.30	8.7	8.0	18	7.1	31	22	2.1	1.3	1.2	.48	1.0
13	.30	6.1	7.5	13	6.4	27	15	2.1	1.6	1.2	.48	.96
14	.26	4.5	8.2	12	7.6	23	12	2.0	1.5	1.1	.48	.92
15	.26	5.3	15	49	9.5	18	9.7	2.4	1.4	1.1	.45	.84
16	.26	11	26	64	11	15	8.3	2.7	1.3	1.0	.45	.78
17	.28	8.6	19	48	9.5	12	8.6	2.2	1.3	1.0	.43	.72
18	1.4	7.2	13	31	8.8	9.7	7.8	2.1	1.4	.96	.43	.68
19	.80	5.9	10	50	8.0	8.3	7.3	2.2	1.3	.92	.43	.65
20	1.2	5.4	9.6	38	7.3	7.2	7.7	2.1	1.2	.88	.53	.65
21	2.6	4.7	8.1	23	6.9	6.3	7.0	2.0	1.2	.84	.65	.62
22	3.9	4.5	7.4	20	7.1	6.6	6.8	1.9	1.2	.81	.75	.59
23	8.4	16	6.7	38	6.7	7.9	6.7	1.9	1.4	.81	.53	.59
24	6.8	48	6.0	43	9.0	12	6.3	1.8	2.3	.78	.45	.65
25	5.9	25	5.5	65	10	11	5.9	1.9	8.4	.75	.43	1.0
26	4.9	20	5.1	43	10	13	5.4	2.3	5.9	.72	.40	.84
27	3.8	22	5.6	26	9.8	15	5.0	2.0	4.5	.72	.40	.68
28	3.0	17	12	18	8.9	13	4.6	1.9	3.7	.72	.43	1.0
29	2.4	12	20	13	------	11	4.2	1.9	3.1	.72	.40	1.8
30	2.0	11	65	10	------	10	3.9	2.0	2.7	.72	.40	1.6
31	1.7	------	54	8.6	------	9.8	------	1.9	------	.68	.84	------
TOTAL	54.10	266.4	505.7	805.1	230.3	441.3	309.2	72.7	64.2	37.03	16.03	45.57
MEAN	1.75	8.88	16.3	26.0	8.23	14.2	10.3	2.35	2.14	1.19	.52	1.52
MAX	8.4	48	65	65	11	33	41	3.7	8.4	2.4	.84	8.7
MIN	.26	1.2	5.1	6.1	5.6	6.3	3.9	1.8	1.2	.68	.40	.59
CFSM	1.50	7.59	13.9	22.2	7.03	12.1	8.80	2.01	1.83	1.02	.44	1.30
IN.	1.72	8.47	16.08	25.63	7.32	14.03	9.83	2.31	2.04	1.18	.51	1.45
AC-FT	107	528	1,000	1,600	457	875	613	144	127	73	32	90

CAL YR 1970 TOTAL 2,420.37 MEAN 6.63 MAX 66 MIN .24 CFSM 5.67 IN 76.96 AC-FT 4,800
WTR YR 1971 TOTAL 2,847.63 MEAN 7.80 MAX 65 MIN .26 CFSM 6.67 IN 90.54 AC-FT 5,650

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0315	3.20	67	1-25	0945	3.27	74
12-30	1845	3.62	114	4- 9	1545	3.18	65
1-16	1900	3.28	75				

14307580 Lake Creek near Deadwood, Oreg.

LOCATION.--Lat 44°04'58", long 123°47'05", in NW¼NW¼ sec.21, T.17 S., R.9 W., Lane County, on right bank 0.2 mile upstream from Indian Creek, 1.5 miles southwest of Deadwood, and at mile 2.6.

DRAINAGE AREA.--174 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.86 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 11,300 cfs Jan. 16 (gage height, 10.75 ft); minimum, 24 cfs Oct. 17.
Period of record: Maximum discharge, 11,400 cfs Jan. 26, 1970 (gage height, 10.87 ft); minimum, 19 cfs Sept. 16, 17, 1969.

REMARKS.--Records excellent. Flow slightly regulated by natural storage in Triangle Lake. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	79	1,500	3,430	908	929	1,530	460	211	169	58	388
2	27	71	1,590	2,320	815	943	1,290	440	204	158	52	510
3	27	67	3,510	1,670	743	1,970	1,100	415	198	146	51	357
4	26	71	2,760	1,300	985	2,300	957	397	188	138	49	229
5	26	130	2,260	1,060	1,080	1,810	861	384	182	133	52	172
6	27	216	2,520	908	929	1,530	791	366	172	127	52	146
7	27	186	3,200	803	809	1,600	725	352	172	120	49	122
8	27	197	2,630	767	731	1,720	964	334	166	112	46	108
9	27	248	1,920	936	707	1,490	4,000	316	160	115	46	96
10	27	236	1,440	1,400	1,010	2,850	3,890	303	169	117	44	88
11	28	400	1,250	1,750	957	4,470	3,120	289	163	117	44	84
12	28	563	1,050	1,500	835	5,310	2,450	276	155	110	42	77
13	26	395	907	1,240	749	4,300	1,900	276	163	106	39	73
14	26	298	921	1,130	785	3,370	1,520	268	175	101	40	69
15	25	256	1,490	4,360	1,140	2,680	1,250	276	160	94	40	65
16	25	497	3,150	7,360	1,300	2,100	1,090	425	149	90	37	62
17	25	459	2,710	8,590	1,100	1,670	1,220	384	140	88	36	56
18	36	380	1,960	6,960	1,010	1,370	1,170	339	166	84	36	52
19	50	325	1,440	5,890	985	1,170	1,010	303	163	81	34	52
20	50	285	1,290	4,430	901	1,020	936	285	149	77	36	52
21	85	256	1,190	3,100	828	908	841	272	140	75	44	51
22	153	260	1,040	2,400	809	992	785	252	133	71	54	49
23	420	921	900	2,140	761	1,310	761	236	133	67	51	49
24	405	3,620	795	2,030	964	1,650	725	226	138	65	44	51
25	370	3,070	718	3,090	1,190	1,510	683	229	551	69	39	58
26	316	1,970	664	2,750	1,160	1,910	635	268	406	67	37	79
27	208	2,570	682	2,160	1,130	2,270	587	256	303	64	37	67
28	150	1,840	1,530	1,730	1,050	2,440	551	236	248	64	40	94
29	120	1,240	3,150	1,410	------	2,100	515	222	215	62	42	160
30	101	1,110	4,730	1,200	------	1,960	485	215	188	62	40	138
31	87	------	6,000	1,020	------	1,800	------	208	------	60	163	------
TOTAL	3,003	22,216	60,897	80,834	26,371	63,452	38,342	9,508	5,860	3,009	1,474	3,654
MEAN	96.9	741	1,964	2,608	942	2,047	1,278	307	195	97.1	47.5	122
MAX	420	3,620	6,000	8,590	1,300	5,310	4,000	460	551	169	163	510
MIN	25	67	664	767	707	908	485	208	133	60	34	49
CFSM	.56	4.26	11.3	15.0	5.41	11.8	7.34	1.76	1.12	.56	.27	.70
IN.	.64	4.75	13.02	17.28	5.64	13.57	8.20	2.03	1.25	.64	.32	.78
AC-FT	5,960	44,070	120,800	160,300	52,310	125,900	76,050	18,860	11,620	5,970	2,920	7,250

CAL YR 1970 TOTAL 286,587 MEAN 785 MAX 8,800 MIN 21 CFSM 4.51 IN 61.27 AC-FT 568,400
WTR YR 1971 TOTAL 318,620 MEAN 873 MAX 8,590 MIN 25 CFSM 5.02 IN 68.12 AC-FT 632,000

PEAK DISCHARGE (BASE, 4,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0630	6.66	4,670	1-16	2300	10.75	11,300
12- 3	1500	7.28	5,530	3-11	2330	7.76	6,130
12-31	0030	9.17	8,450	4- 9	1830	7.69	6,020

14307620 Siuslaw River near Mapleton, Oreg.

LOCATION.--Lat 44°03'45", long 123°52'55", in SW¼NW¼ sec.27, T.17 S., R.10 W., Lane County, on right bank 250 ft above Shoemaker Creek, 2.5 miles northwest of Mapleton, and at mile 23.7.

DRAINAGE AREA.--588 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 41 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 31,600 cfs Jan. 17 (gage height, 22.63 ft); minimum, 60 cfs Oct. 14.
Period of record: Maximum discharge, 32,300 cfs Jan. 27, 1970 (gage height, 22.93 ft); minimum, 60 cfs Oct. 14, 1970.
Flood of December 1964, reached a stage of about 28 ft, from information by local residents (discharge not determined).

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended sediment loads for water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	250	4,370	11,800	2,720	3,280	4,590	1,440	640	540	203	991
2	83	228	5,380	7,560	2,420	3,160	3,860	1,380	650	500	194	1,390
3	80	215	9,990	5,180	2,240	5,940	3,280	1,310	635	465	188	1,030
4	80	215	9,000	3,950	2,850	8,360	2,870	1,240	610	435	182	668
5	76	320	6,480	3,210	3,460	6,780	2,560	1,200	570	420	182	495
6	78	540	6,690	2,760	3,020	5,530	2,350	1,150	545	400	188	410
7	80	535	8,040	2,420	2,630	5,460	2,160	1,100	530	380	179	356
8	83	580	6,680	2,260	2,320	6,040	2,690	1,050	515	368	173	317
9	80	758	4,720	2,700	2,220	5,190	11,300	1,010	490	372	170	289
10	83	734	3,590	4,070	3,030	7,960	12,600	963	515	376	164	261
11	87	1,080	3,200	5,520	2,960	13,800	9,430	921	505	380	161	247
12	87	1,820	2,740	5,120	2,580	16,400	7,830	886	480	360	156	234
13	85	1,350	2,400	4,160	2,340	13,800	6,000	893	505	340	151	221
14	76	963	2,440	3,630	2,310	10,900	4,680	858	545	324	148	209
15	76	782	4,070	14,000	3,370	8,820	3,800	872	505	310	151	206
16	72	1,350	9,300	23,800	4,190	6,960	3,280	1,250	460	299	146	200
17	81	1,340	8,640	28,200	3,560	5,470	3,630	1,170	440	289	143	179
18	102	1,110	6,000	24,300	3,160	4,440	3,900	1,040	500	278	138	173
19	173	935	4,120	20,900	3,160	3,750	3,820	935	550	268	138	164
20	176	812	3,640	14,000	3,020	3,250	3,820	865	490	261	138	164
21	264	728	3,420	9,000	2,750	2,880	3,140	830	455	247	161	161
22	505	698	3,040	7,500	2,640	3,020	2,430	782	430	240	191	156
23	1,170	2,330	2,600	6,500	2,460	4,120	2,330	740	425	231	182	156
24	1,090	10,300	2,260	6,000	2,910	5,450	2,220	704	430	224	164	158
25	1,060	8,850	2,030	9,000	3,820	4,840	2,090	698	1,480	228	151	176
26	1,040	5,290	1,890	8,000	3,800	5,960	1,960	788	1,330	221	143	228
27	710	6,890	1,920	6,200	3,780	7,100	1,830	800	984	215	143	215
28	510	5,470	3,780	5,190	3,630	7,550	1,720	710	788	218	143	261
29	388	3,520	8,790	4,210	-------	6,390	1,610	674	674	212	148	495
30	320	2,980	13,700	3,580	-------	5,780	1,520	650	595	215	148	465
31	278	-------	20,400	3,100	-------	5,350	-------	625	-------	212	352	-------
TOTAL	9,160	62,973	175,320	257,820	83,350	203,730	119,300	29,534	18,271	9,828	5,219	10,675
MEAN	295	2,099	5,655	8,317	2,977	6,572	3,977	953	609	317	168	356
MAX	1,170	10,300	20,400	28,200	4,190	16,400	12,600	1,440	1,480	540	352	1,390
MIN	72	215	1,890	2,260	2,220	2,880	1,520	625	425	212	138	156
CFSM	.50	3.57	9.62	14.1	5.06	11.2	6.76	1.62	1.04	.54	.29	.61
IN.	.58	3.98	11.09	16.31	5.27	12.89	7.55	1.87	1.16	.62	.33	.68
AC-FT	18,170	124,900	347,700	511,400	165,300	404,100	236,600	58,580	36,240	19,490	10,350	21,170

CAL YR 1970 TOTAL 845,051 MEAN 2,315 MAX 20,400 MIN 72 CFSM 3.94 IN 53.46 AC-FT 1,676,000
WTR YR 1971 TOTAL 985,180 MEAN 2,699 MAX 28,200 MIN 72 CFSM 4.59 IN 62.33 AC-FT 1,954,000

PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0200	19.62	24,900	3-12	unknown	unknown	18,000
1-17	0100	22.63	31,600	4- 9	2000	15.53	16,700

14307645 North Fork Siuslaw River near Minerva, Oreg.

LOCATION.--Lat 44°02'50", long 124°00'10", in NW¼SW¼ sec.34, T.17 S., R.11 W., Lane County, on left bank 10 ft downstream from county road bridge, 0.3 mile upstream from Condon Creek, 2.7 miles southwest of Minerva, and at mile 13.09.

DRAINAGE AREA.--41.2 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 40 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 2,610 cfs Dec. 31 (gage height, 21.07 ft); minimum, 14 cfs Oct. 13-17.
Period of record: Maximum discharge, 2,710 cfs Nov. 9, 1968 (gage height, 21.50 ft); minimum, 13 cfs Aug. 18-20, 1970.

REMARKS.--Records fair. No regulation. Small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	49	507	1,240	318	417	454	171	79	103	34	227
2	15	44	564	732	279	425	395	163	77	95	33	206
3	15	42	1,300	525	251	624	338	155	76	89	33	138
4	15	43	1,170	418	602	691	298	151	71	84	32	91
5	15	48	754	356	503	613	272	144	67	81	32	76
6	15	63	659	302	382	521	258	136	67	77	31	67
7	15	62	886	267	322	492	237	128	67	72	30	58
8	15	130	697	297	282	465	395	123	68	70	29	53
9	15	147	527	677	290	433	1,500	117	62	81	27	48
10	15	129	454	983	563	908	1,580	113	74	77	27	45
11	15	225	425	852	435	1,350	1,040	108	67	73	27	46
12	15	244	360	649	364	1,420	760	105	64	72	27	42
13	14	175	324	510	315	1,250	589	112	74	67	27	39
14	14	136	345	494	357	1,010	482	106	72	59	27	39
15	14	139	545	1,320	439	788	413	123	63	53	26	37
16	14	229	862	1,650	398	615	359	173	58	51	26	35
17	14	181	623	1,770	345	504	417	139	55	49	25	34
18	52	182	475	2,010	353	423	372	120	105	48	25	32
19	37	163	386	2,190	352	366	318	113	115	46	25	32
20	55	152	437	1,850	317	316	306	109	100	44	27	32
21	94	139	424	1,140	289	280	279	103	89	42	41	31
22	131	151	364	871	328	378	267	98	82	41	42	29
23	361	597	316	959	308	600	264	92	91	40	32	29
24	199	1,810	277	908	564	644	262	88	88	39	28	30
25	181	1,410	255	1,800	549	519	250	88	425	38	27	38
26	162	900	242	1,610	479	620	232	98	235	38	26	52
27	111	1,080	259	1,020	484	719	217	93	176	38	26	38
28	88	700	500	717	461	750	203	84	152	38	26	87
29	72	471	780	548	------	618	191	81	131	37	26	128
30	61	449	1,530	445	------	607	181	81	114	37	27	102
31	55	------	2,220	373	------	533	------	79	------	36	45	------
TOTAL	1,909	10,290	19,467	29,483	10,929	19,899	13,129	3,596	3,064	1,815	916	1,941
MEAN	61.6	343	628	951	390	642	438	116	102	58.5	29.5	64.7
MAX	361	1,810	2,220	2,190	602	1,420	1,580	173	425	103	45	227
MIN	14	42	242	267	251	280	181	79	55	36	25	29
CFSM	1.50	8.33	15.2	23.1	9.47	15.6	10.6	2.82	2.48	1.42	.72	1.57
IN.	1.72	9.29	17.58	26.62	9.87	17.97	11.85	3.25	2.77	1.64	.83	1.75
AC-FT	3,790	20,410	38,610	58,480	21,680	39,470	26,040	7,130	6,080	3,600	1,820	3,850

CAL YR 1970 TOTAL 103,142 MEAN 283 MAX 2,370 MIN 13 CFSM 6.87 IN 93.13 AC-FT 204,600
WTR YR 1971 TOTAL 116,436 MEAN 319 MAX 2,220 MIN 14 CFSM 7.74 IN 105.13 AC-FT 231,000

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0930	18.21	2,040	1-19	1630	20.21	2,430
12- 3	1700	17.44	1,880	4- 9	1930	18.56	2,090
12-31	0100	21.07	2,610				

14307700 Jackson Creek near Tiller, Oreg.

LOCATION.--Lat 42°57'15", long 122°49'40", in SW¼NE¼ sec.21, T.30 S., R.1 W., Douglas County, on right bank 0.5 mile upstream from Chapman Creek, 0.8 mile downstream from Beaver Creek, 6.5 miles northeast of Tiller, and at mile 3.0. Records include flow of Chapman Creek.

DRAINAGE AREA.--152 sq mi, at cableway 0.6 mile downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,240.25 ft above mean sea level (levels by Douglas County Water Resources Survey).

AVERAGE DISCHARGE.--16 years, 314 cfs (28.05 inches per year, 227,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,900 cfs Jan. 18 (gage height, 10.90 ft); minimum, 16 cfs Oct. 17.
Period of record: Maximum discharge, 21,100 cfs Dec. 22, 1964 (gage height, 18.0 ft, from floodmark), from rating curve extended above 5,100 cfs and basin runoff comparison; minimum daily, 12 cfs Oct. 2-4, 1955.

REMARKS.--Records excellent. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1935: 1956-57(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	42	601	692	514	360	680	530	464	162	42	35
2	16	40	514	480	489	328	633	579	456	150	41	55
3	16	37	764	360	428	368	651	678	432	141	40	51
4	16	41	683	290	409	432	800	707	416	130	40	37
5	16	118	597	245	539	382	900	683	409	122	39	33
6	17	108	817	214	702	349	1,000	583	416	115	37	33
7	18	92	1,480	193	637	382	850	588	420	108	37	34
8	18	405	1,220	206	561	464	700	669	394	102	36	31
9	18	532	872	544	514	472	700	615	375	98	35	30
10	18	228	669	1,150	592	522	750	592	382	96	33	29
11	18	482	669	892	633	1,020	650	665	356	90	33	28
12	17	972	566	665	660	1,620	600	812	339	87	32	28
13	17	451	489	527	669	1,070	580	923	325	82	31	27
14	17	266	464	440	615	847	580	688	294	79	31	27
15	16	194	749	1,730	711	721	580	597	277	76	31	26
16	16	180	1,170	1,990	597	610	550	544	261	72	31	25
17	16	169	744	6,440	505	522	600	460	242	68	30	24
18	18	152	544	6,650	468	468	700	409	264	65	30	23
19	21	146	424	3,400	472	452	650	382	251	65	29	23
20	39	134	360	2,250	413	500	680	356	239	61	29	23
21	50	122	307	1,430	379	650	620	325	231	58	29	23
22	69	142	254	1,040	386	1,200	580	332	219	56	31	23
23	142	566	219	847	416	3,000	580	397	206	53	32	23
24	141	2,630	193	711	548	2,200	580	460	188	52	30	23
25	97	1,920	175	597	642	1,700	540	501	382	50	28	27
26	105	1,150	164	514	522	2,400	580	601	368	48	28	56
27	71	1,260	156	464	472	1,600	620	531	280	47	28	64
28	57	923	179	444	416	1,000	560	527	231	46	30	55
29	53	660	325	436	------	900	500	489	198	45	28	143
30	51	655	390	452	------	850	500	456	177	43	28	115
31	47	------	1,010	505	------	750	------	405	------	43	37	------
TOTAL	1,248	14,817	17,768	36,798	14,909	28,139	19,494	17,084	9,492	2,510	1,016	1,174
MEAN	40.3	494	573	1,187	532	908	650	551	316	81.0	32.8	39.1
MAX	142	2,630	1,480	6,650	711	3,000	1,000	923	464	162	42	143
MIN	16	37	156	193	379	328	500	325	177	43	28	23
CFSM	.27	3.25	3.77	7.81	3.50	5.97	4.28	3.63	2.08	.53	.22	.26
IN.	.31	3.63	4.35	9.01	3.65	6.89	4.77	4.18	2.32	.61	.25	.29
AC-FT	2,480	29,390	35,240	72,990	29,570	55,810	38,670	33,890	18,830	4,980	2,020	2,330

CAL YR 1970 TOTAL 123,372 MEAN 338 MAX 3,350 MIN 16 CFSM 2.22 IN 30.19 AC-FT 244,700
WTR YR 1971 TOTAL 164,449 MEAN 451 MAX 6,650 MIN 16 CFSM 2.97 IN 40.25 AC-FT 326,200

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1600	7.43	3,590	1-18	0330	10.90	7,900
1-15	1700	7.18	3,340	3-23	1130	8.19	4,410

14308000 South Umpqua River at Tiller, Oreg.

LOCATION.--Lat 42°55'50", long 122°56'50", in NE¼ sec.33, T.30 S., R.2 W., Douglas County, on right bank 0.3 mile upstream from bridge on State Highway 227 at Tiller, 0.3 mile upstream from Elk Creek, and at mile 187.31.

DRAINAGE AREA.--449 sq mi.

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

GAGE.--Water-stage recorder. Datum of gage is 991.8 ft above mean sea level (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mile downstream at different datum.

AVERAGE DISCHARGE.--33 years, 1,028 cfs (31.09 inches per year, 744,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 32,200 cfs Jan. 18 (gage height, 18.46 ft); minimum, 39 cfs Oct. 17.
Period of record: Maximum discharge, 60,200 cfs Dec. 22, 1964 (gage height, 25.72 ft); minimum observed, 20 cfs Sept. 3, 4, 1911.

REMARKS.--Records good. No regulation. Small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1448: 1911(M), 1912, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	136	2,050	2,570	1,740	1,230	2,550	1,590	1,100	518	129	120
2	42	126	1,710	1,690	1,580	1,080	2,300	1,720	1,040	479	125	154
3	42	117	2,210	1,230	1,350	1,180	2,180	1,960	953	438	120	176
4	41	113	2,050	985	1,310	1,460	2,190	2,030	897	406	118	120
5	41	213	1,790	833	1,720	1,300	2,470	1,900	868	380	116	102
6	42	330	2,780	733	2,240	1,160	2,690	1,590	885	354	112	94
7	46	272	4,900	658	2,080	1,250	2,450	1,610	909	333	112	94
8	48	948	4,050	687	1,890	1,550	1,980	1,870	868	316	108	89
9	47	2,250	2,790	2,180	1,730	1,630	1,970	1,680	833	303	104	85
10	46	920	2,050	5,540	2,140	1,590	2,070	1,590	850	293	102	82
11	46	1,530	2,070	3,650	2,280	3,700	1,790	1,780	827	274	100	80
12	45	3,120	1,740	2,510	2,220	5,610	1,710	2,130	787	262	96	77
13	44	1,540	1,500	1,900	2,170	3,740	1,660	2,570	760	250	94	77
14	43	939	1,410	1,550	1,950	2,940	1,700	1,900	708	238	93	75
15	41	673	2,250	3,920	2,500	2,570	1,690	1,630	667	230	91	74
16	41	594	4,150	6,870	2,100	2,150	1,600	1,550	633	221	89	72
17	40	583	2,650	28,700	1,740	1,790	1,700	1,310	605	212	87	69
18	42	495	1,840	26,000	1,530	1,570	1,700	1,140	667	202	87	66
19	50	462	1,390	11,000	1,550	1,480	1,700	1,040	677	199	85	64
20	78	414	1,150	6,320	1,360	1,820	1,600	965	643	188	82	64
21	132	375	985	4,020	1,250	2,260	1,700	874	619	178	82	63
22	168	391	833	3,020	1,290	4,460	1,800	844	610	171	84	63
23	416	2,100	728	2,500	1,540	10,400	1,700	953	586	163	91	63
24	634	9,810	643	2,200	2,190	7,720	1,430	1,100	531	158	85	63
25	358	6,210	591	2,000	2,820	5,790	1,340	1,230	1,350	154	80	66
26	420	3,540	558	1,770	2,050	8,170	1,370	1,570	1,390	149	78	122
27	248	4,760	531	1,630	1,740	4,980	1,540	1,400	959	145	78	171
28	190	3,510	554	1,580	1,480	3,620	1,540	1,370	760	140	84	138
29	176	2,430	1,070	1,550	------	3,170	1,470	1,270	643	138	84	471
30	169	2,240	1,160	1,550	------	3,200	1,420	1,140	568	133	80	403
31	153	------	3,790	1,740	------	2,880	------	1,000	------	131	102	------
TOTAL	3,973	51,141	57,973	133,086	51,540	97,450	55,010	46,306	24,193	7,756	2,978	3,457
MEAN	128	1,705	1,870	4,293	1,841	3,144	1,834	1,494	806	250	96.1	115
MAX	634	9,810	4,900	28,700	2,820	10,400	2,690	2,570	1,390	518	129	471
MIN	40	113	531	658	1,250	1,080	1,340	844	531	131	78	63
CFSM	.29	3.80	4.16	9.56	4.10	7.00	4.08	3.33	1.80	.56	.21	.26
IN.	.33	4.24	4.80	11.03	4.27	8.07	4.56	3.84	2.00	.64	.25	.29
AC-FT	7,880	101,400	115,000	264,000	102,200	193,300	109,100	91,850	47,990	15,380	5,910	6,860

CAL YR 1970 TOTAL 403,007.0 MEAN 1,104 MAX 12,200 MIN 4.5 CFSM 2.46 IN 33.39 AC-FT 799,400
WTR YR 1971 TOTAL 534,863.0 MEAN 1,465 MAX 28,700 MIN 40 CFSM 3.26 IN 44.31 AC-FT 1,061,000

PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1530	12.30	14,000	3-23	0100	11.82	12,900
1-10	0930	8.74	7,110	3-26	0330	10.48	10,000
1-18	0200	18.46	32,200				

14308500 Elk Creek near Drew, Oreg.

LOCATION.--Lat 42°53'25", long 122°55'00", in SW¼ sec.11, T.31 S., R.2 W., Douglas County, on right bank 100 ft downstream from Dixon Creek, 0.1 mile upstream from Drew Creek, 1.3 miles northwest of Drew, 3.3 miles southeast of Tiller, and at mile 4.1.

DRAINAGE AREA.--54.4 sq mi.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,279.25 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 84.8 cfs (61,440 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,800 cfs Jan. 17 (gage height, 8.02 ft); minimum, 0.16 cfs Oct. 1, 6.
Period of record: Maximum discharge, 8,880 cfs Dec. 22, 1964 (gage height, 10.61 ft), from rating curve extended above 2,900 cfs on basis of slope-area measurement at gage height, 10.34 ft; minimum, 0.02 cfs Aug. 9-13, 1968.
Maximum stage, 11.8 ft, from floodmarks, probably for flood in January or November 1953 (discharge, about 11,000 cfs).

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	4.0	215	318	114	86	161	112	105	9.0	2.0	2.0
2	.35	3.7	210	191	103	80	141	110	84	9.0	1.9	4.1
3	.41	3.4	528	134	89	129	131	123	66	8.1	1.7	3.5
4	.41	3.9	281	104	127	170	129	116	53	7.7	1.6	2.4
5	.35	12	276	89	348	137	139	112	45	7.2	1.5	1.9
6	.30	14	397	88	337	125	148	95	38	6.8	1.6	1.9
7	.69	9.9	745	77	239	192	141	92	33	6.3	1.3	2.0
8	.67	23	455	87	180	268	114	93	30	5.9	1.2	1.7
9	.96	59	279	247	145	228	127	83	28	5.9	1.2	1.4
10	1.2	28	190	384	154	312	131	73	28	6.3	.95	1.3
11	1.1	59	172	274	163	778	105	71	25	5.9	.76	1.2
12	.97	167	139	192	161	891	92	73	22	5.2	.88	1.1
13	.94	67	125	150	154	511	86	73	21	5.2	.76	1.2
14	1.0	38	124	133	135	355	87	59	20	5.2	.82	1.2
15	.94	26	314	1,760	143	264	92	52	18	4.9	.82	1.1
16	.86	22	560	1,200	110	208	90	48	17	4.6	.95	.82
17	.82	21	264	2,700	90	175	110	43	16	4.3	1.1	.95
18	1.0	19	170	1,730	86	156	165	38	17	4.1	1.0	.82
19	1.5	19	123	991	92	145	133	35	16	4.3	1.0	.52
20	3.6	19	104	692	81	159	165	34	14	4.1	.88	.56
21	6.2	19	89	418	72	192	154	32	12	3.5	.60	.60
22	10	22	75	281	89	371	141	30	11	3.2	.76	.65
23	15	130	63	225	117	756	141	29	9.9	2.8	1.1	.52
24	19	971	55	182	110	564	143	28	9.9	2.8	1.0	.65
25	11	439	49	145	117	724	139	28	15	2.6	.95	1.1
26	12	263	45	121	103	1,300	141	48	19	2.4	.76	2.8
27	8.9	660	43	107	101	545	154	36	14	2.0	.95	3.5
28	6.8	319	104	101	97	340	145	34	12	1.9	1.4	3.5
29	5.6	186	286	101	------	261	129	32	11	1.9	1.2	7.2
30	4.9	231	297	101	------	239	116	34	9.4	1.9	.95	10
31	4.3	------	641	110	------	200	------	38	------	2.2	1.6	------
TOTAL	121.99	3,857.9	7,418	13,433	3,857	10,861	3,890	1,904	819.2	147.2	35.19	62.19
MEAN	3.94	129	239	433	138	350	130	61.4	27.3	4.75	1.14	2.07
MAX	19	971	745	2,700	348	1,300	165	123	105	9.0	2.0	10
MIN	.22	3.4	43	77	72	80	86	28	9.4	1.9	.60	.52
AC-FT	242	7,650	14,710	26,640	7,650	21,540	7,720	3,780	1,620	292	70	123

CAL YR 1970 TOTAL 34,871.60 MEAN 95.5 MAX 1,770 MIN .09 AC-FT 69,170
WTR YR 1971 TOTAL 46,406.67 MEAN 127 MAX 2,700 MIN .22 AC-FT 92,050

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0930	5.85	1,310	1-17	0700	8.02	3,800
11-27	0800	5.66	1,160	3-11	2100	6.39	1,880
12- 3	1330	5.61	1,110	3-26	0030	7.16	2,720
12- 7	1200	5.55	1,070				

14308700 Days Creek at Days Creek, Oreg.

LOCATION.--Lat 42°58'55", long 123°08'55", in NE¼ sec.10, T.30 S., R.4 W., Douglas County, on left bank 150 ft downstream from Wood Creek, 1.0 mile northeast of town of Days Creek, and at mile 1.3.

DRAINAGE AREA.--55.3 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 810 ft (from topographic map). Prior to Oct. 1, 1962, at site 170 ft upstream at datum 3.06 ft higher.

AVERAGE DISCHARGE.--16 years, 44.4 cfs (32,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs Jan. 17 (gage height, 8.55 ft), from rating curve extended above 900 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.40 cfs Aug. 15.
Period of record: Maximum discharge, 3,450 cfs Feb. 21, 1956 (gage height, 11.24 ft, site and datum then in use), from rating curve extended above 1,100 cfs on basis of slope-area measurement of peak flow; no flow for many days in July and August 1961.

REMARKS.--Records fair. No regulation. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	2.1	50	159	32	90	70	39	34	4.4	1.0	1.6
2	.72	2.1	90	111	26	80	65	36	29	4.7	.98	2.3
3	.72	2.0	238	66	26	110	58	32	24	4.7	.98	2.3
4	.72	1.9	142	60	85	220	52	30	19	4.0	.98	2.0
5	.72	3.5	92	44	247	159	46	28	16	3.6	.98	1.8
6	.89	5.2	92	40	196	196	43	24	14	3.3	.98	1.6
7	.83	5.6	71	36	146	229	43	22	12	3.3	1.4	1.6
8	.83	8.0	118	47	80	247	38	22	11	3.3	.79	1.6
9	1.2	29	62	100	66	174	37	20	11	3.6	.68	1.6
10	1.2	14	60	250	60	196	46	20	11	3.6	.68	1.9
11	1.1	9.0	81	180	54	370	39	19	10	3.0	.63	1.7
12	1.0	19	68	120	50	462	37	20	8.7	2.7	.58	1.8
13	1.2	14	70	92	46	266	33	22	8.1	2.4	.92	1.9
14	1.0	9.0	90	97	42	181	32	19	7.6	2.4	.68	1.7
15	.89	7.0	144	756	45	136	32	16	7.6	2.1	.40	2.0
16	.95	6.4	608	639	40	112	32	18	7.0	2.1	.49	2.0
17	.89	5.6	511	1,400	38	89	88	17	6.5	2.1	.54	2.0
18	1.3	5.0	312	1,020	36	88	84	15	11	1.9	.54	1.8
19	1.5	5.0	214	450	54	73	72	15	8.4	1.7	.63	1.7
20	1.9	5.6	66	300	48	68	94	14	7.8	1.7	.54	1.6
21	2.5	6.9	54	220	44	64	90	14	5.8	1.7	.44	1.5
22	2.9	10	44	150	46	75	80	13	5.6	1.7	1.3	1.1
23	3.7	25	34	101	87	253	74	12	5.6	1.7	1.7	1.6
24	4.2	100	24	90	80	212	90	12	5.1	1.5	1.5	1.8
25	5.6	48	22	80	95	209	96	11	15	1.4	1.3	2.1
26	7.2	48	21	68	85	238	90	31	12	1.2	1.5	2.8
27	4.4	90	20	66	100	181	88	18	7.0	1.0	1.5	4.2
28	3.8	75	22	57	95	130	65	15	6.6	.98	1.3	4.5
29	3.4	50	50	58	------	80	50	14	6.0	1.2	1.4	14
30	2.0	45	132	46	------	80	44	13	5.1	1.0	1.6	7.8
31	2.1	------	220	39	------	78	------	12	------	1.0	1.6	------
TOTAL	62.08	656.9	3,822	6,942	2,049	5,146	1,808	613	337.5	74.98	30.54	77.9
MEAN	2.00	21.9	123	224	73.2	166	60.3	19.8	11.3	2.42	.99	2.60
MAX	7.2	100	608	1,400	247	462	96	39	34	4.7	1.7	14
MIN	.72	1.9	20	36	26	64	32	11	5.1	.98	.40	1.1
AC-FT	123	1,300	7,580	13,770	4,060	10,210	3,590	1,220	669	149	61	155

CAL YR 1970 TOTAL 14,298.20 MEAN 39.2 MAX 608 MIN .39 AC-FT 28,360
WTR YR 1971 TOTAL 21,619.90 MEAN 59.2 MAX 1,400 MIN .40 AC-FT 42,880

PEAK DISCHARGE (BASE, 900 CFS).--Jan. 17 (1700) 1,800 cfs (8.55 ft).

14309000 Cow Creek near Azalea, Oreg.

LOCATION.--Lat 42°49'30", long 123°10'40", in N½ sec.4, T.32 S., R.4 W., Douglas County, on right bank 0.8 mile upstream from Whitehorse Creek, 4.5 miles northeast of Azalea, and at mile 58.2.

DRAINAGE AREA.--78.0 sq mi.

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,685 ft (by barometer). Prior to July 19, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years (1929-31, 1932-71), 110 cfs (19.15 inches per year, 79,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,020 cfs Jan. 17 (gage height, 11.80 ft); minimum not determined, occurred during period of no gage-height record Oct. 1-8; minimum daily, 7.5 cfs Oct. 1.
Period of record: Maximum discharge, 8,430 cfs Dec. 22, 1964 (gage height, 15.63 ft); minimum recorded, 1.2 cfs Sept. 2, 1970, but may have been less during period of no gage-height record Sept. 4-30, 1970.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	14	196	392	235	121	294	204	113	33	16	17
2	8.0	14	172	270	223	116	266	206	99	32	16	19
3	8.5	14	462	207	199	162	249	215	88	32	16	19
4	9.0	16	314	170	209	192	239	206	80	30	16	16
5	9.5	45	290	145	434	162	243	195	76	30	16	15
6	10	44	465	127	407	154	248	174	69	29	16	16
7	10	26	950	116	315	188	245	166	64	28	16	16
8	11	39	527	117	265	248	216	167	61	28	15	15
9	11	105	342	174	233	244	253	153	58	28	15	14
10	11	48	251	304	235	313	251	138	58	28	14	14
11	11	83	225	268	244	879	218	134	54	27	14	13
12	10	194	185	220	250	1,110	204	144	52	27	14	13
13	10	74	166	191	246	592	197	137	51	27	14	13
14	10	46	160	172	234	460	194	114	48	26	14	13
15	10	33	335	1,780	261	383	195	107	46	25	14	12
16	9.8	31	724	1,630	216	329	191	104	44	24	14	12
17	9.8	29	354	3,740	188	283	231	97	42	23	13	12
18	11	27	245	2,260	173	257	278	91	47	23	13	11
19	14	28	190	1,340	169	241	231	87	44	24	13	11
20	19	26	168	1,010	149	243	246	87	41	22	13	12
21	25	28	148	612	139	258	230	88	38	21	13	12
22	39	28	124	462	138	340	219	82	36	19	16	12
23	51	146	109	387	139	696	216	78	35	19	16	1
24	63	1,070	99	329	137	597	224	75	35	19	14	1
25	29	413	94	279	147	681	249	74	46	20	14	1
26	33	236	90	247	134	1,630	239	87	53	19	13	2
27	23	594	86	226	138	730	245	79	42	18	14	21
28	18	345	139	217	135	506	239	74	38	17	15	20
29	17	201	302	213	------	420	222	71	35	17	14	37
30	16	203	335	212	------	387	207	75	34	17	14	38
31	15	------	826	229	------	339	------	80	------	16	16	------
TOTAL	539.1	4,200	9,073	18,046	5,992	13,261	6,979	3,789	1,627	748	451	480
MEAN	17.4	140	293	582	214	428	233	122	54.2	24.1	14.5	16.0
MAX	63	1,070	950	3,740	434	1,630	294	215	113	33	16	38
MIN	7.5	14	86	116	134	116	191	71	34	16	13	11
CFSM	.22	1.79	3.76	7.46	2.74	5.49	2.99	1.56	.69	.31	.19	.21
IN.	.26	2.00	4.33	8.61	2.86	6.32	3.33	1.81	.78	.36	.22	.23
AC-FT	1,070	8,330	18,000	35,790	11,890	26,300	13,840	7,520	3,230	1,480	895	952

CAL YR 1970 TOTAL 48,748.2 MEAN 134 MAX 2,270 MIN 6.9 CFSM 1.72 IN 23.25 AC-FT 96,690
WTR YR 1971 TOTAL 65,185.1 MEAN 179 MAX 3,740 MIN 7.5 CFSM 2.29 IN 31.09 AC-FT 129,300

PEAK DISCHARGE (BASE, 1,300 CFS)

ATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1130	6.25	1,540	1-17	1130	11.80	5,020
12- 7	1200	6.38	1,600	3-11	2300	8.58	2,750
12-31	0600	5.84	1,330	3-26	0200	8.93	2,960

14309500 West Fork Cow Creek near Glendale, Oreg.

LOCATION.--Lat 42°48'15", long 123°36'35", in SW¼NE¼ sec.11, T.32 S., R.8 W., Douglas County, on left bank 1.6 miles downstream from Bear Creek, 11 miles northwest of Glendale, and at mile 0.8.

DRAINAGE AREA.--86.9 sq mi.

PERIOD OF RECORD.--August 1955 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,000 ft (from topographic map). Prior to June 8, 1964, at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE.--16 years, 283 cfs (44.22 inches per year, 205,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,500 cfs Jan. 17 (gage height, 15.19 ft); minimum, 7.4 cfs Oct. 4-6.
Period of record: Maximum discharge, 15,700 cfs Dec. 22, 1964 (gage height, 18.59 ft, from floodmark), from rating curve extended above 2,600 cfs on basis of slope-area measurement of peak flow; minimum, 6.3 cfs Oct. 2, 1958, Oct. 25, 1964.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	20	421	1,090	230	233	559	202	67	34	14	17
2	7.7	19	359	636	208	224	479	189	69	33	14	21
3	7.7	18	1,340	444	185	358	411	174	62	31	14	22
4	7.7	18	1,070	340	261	479	372	162	59	30	13	17
5	7.4	39	927	276	484	389	358	152	58	29	14	14
6	7.7	93	1,730	232	474	337	335	141	55	29	14	14
7	8.4	76	2,520	202	371	393	288	133	52	28	14	14
8	8.7	147	1,380	183	301	535	288	123	51	28	13	13
9	8.7	311	799	239	257	525	952	116	50	27	13	12
10	8.6	139	555	707	237	1,050	1,040	104	50	27	12	11
11	8.3	232	487	655	218	2,860	855	102	47	27	12	10
12	8.3	391	407	475	202	2,700	768	98	46	27	12	10
13	8.0	208	356	372	187	1,520	665	98	46	25	11	10
14	8.0	129	374	344	196	1,100	553	87	44	24	11	10
15	8.0	93	739	4,600	257	847	452	83	41	23	11	9.8
16	8.0	82	1,600	4,760	254	672	387	116	40	22	11	9.4
17	8.0	67	950	8,250	227	541	506	109	39	21	11	9.0
18	8.4	58	581	3,900	202	468	700	93	40	21	11	8.6
19	9.8	55	419	1,990	199	437	611	87	40	21	11	8.6
20	18	50	363	1,310	190	479	559	72	36	20	11	8.6
21	41	47	316	856	185	541	457	85	34	19	11	8.6
22	73	48	264	618	190	679	396	85	33	17	12	8.6
23	106	391	228	504	211	1,220	363	85	31	17	13	8.6
24	149	1,780	202	425	271	1,160	340	85	31	17	12	8.6
25	79	826	187	367	389	995	326	74	56	17	12	9.0
26	116	469	176	317	329	2,000	331	80	64	16	11	25
27	60	1,270	164	286	305	1,470	322	74	47	15	11	22
28	40	702	609	268	275	919	288	67	42	15	12	23
29	31	392	1,340	254	------	708	248	64	39	15	12	113
30	26	385	1,360	237	------	665	215	62	36	15	11	83
31	23	------	2,650	230	------	624	------	62	------	15	14	------
TOTAL	917.1	8,555	24,873	35,367	7,295	27,128	14,424	3,264	1,405	705	378	558.4
MEAN	29.6	285	802	1,141	261	875	481	105	46.8	22.7	12.2	18.6
MAX	149	1,780	2,650	8,250	484	2,860	1,040	202	69	34	14	113
MIN	7.4	18	164	183	185	224	215	62	31	15	11	8.6
CFSM	.34	3.28	9.23	13.1	3.00	10.1	5.54	1.21	.54	.26	.14	.21
IN.	.39	3.66	10.65	15.14	3.12	11.61	6.17	1.40	.60	.30	.16	.24
AC-FT	1,820	16,970	49,340	70,150	14,470	53,810	28,610	6,470	2,790	1,400	750	1,110

CAL YR 1970 TOTAL 105,205.0 MEAN 288 MAX 4,330 MIN 7.4 CFSM 3.31 IN 45.04 AC-FT 208,700
WTR YR 1971 TOTAL 124,869.5 MEAN 342 MAX 8,250 MIN 7.4 CFSM 3.94 IN 53.45 AC-FT 247,700

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 7	0830	9.04	3,530	1-17	1530	15.19	10,500
12-31	0400	9.54	4,050	3-11	2100	10.66	5,530
1-15	1630	13.46	8,610				

14310000 Cow Creek near Riddle, Oreg.

LOCATION.--Lat 42°55'25", long 123°25'40", in NE¼ sec.32, T.30 S., R.6 W., Douglas County, on left bank 0.4 mile upstream from Council Creek, 3.8 miles southwest of Riddle, and at mile 6.7.

DRAINAGE AREA.--456 sq mi.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 926 cfs (670,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 32,400 cfs Jan. 17 (gage height, 25.01 ft); minimum, 17 cfs Sept. 14.

Period of record: Maximum discharge, 37,500 cfs Dec. 22, 1964 (gage height, 27.67 ft); minimum, 17 cfs Sept. 14, 1971.

Flood of Oct. 29, 1950, reached a stage of about 28.5 ft, present site and datum, from slope-area measurement (discharge, 41,100 cfs).

REMARKS.--Records good. No regulation. Many small diversions for irrigation above station. Records of chemical analyses for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1935: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	73	1,610	4,500	986	909	1,860	837	333	133	51	54
2	24	69	1,520	2,690	931	873	1,630	802	372	126	51	59
3	24	66	3,620	1,880	840	1,210	1,450	776	333	123	49	67
4	25	65	3,980	1,460	925	1,960	1,320	751	301	121	49	64
5	25	80	2,530	1,190	1,710	1,770	1,250	709	296	118	48	58
6	25	215	4,780	1,000	2,190	1,560	1,210	661	275	112	47	56
7	27	209	7,260	871	1,780	1,630	1,130	608	260	107	47	55
8	29	185	4,800	774	1,450	2,220	1,040	578	247	105	46	52
9	30	677	2,840	850	1,220	2,250	1,830	556	237	102	45	51
10	29	417	1,960	1,780	1,080	2,770	2,800	513	237	102	44	50
11	28	442	1,650	2,240	1,020	7,090	2,390	479	224	105	42	48
12	32	1,050	1,390	1,840	963	10,900	2,180	466	216	103	41	45
13	32	695	1,210	1,540	928	6,140	1,940	473	213	100	38	44
14	30	396	1,130	1,350	876	4,230	1,690	433	205	98	38	41
15	29	276	1,710	12,600	1,040	3,440	1,440	409	194	94	38	41
16	28	228	6,040	15,900	999	2,710	1,280	440	185	90	38	39
17	27	206	3,920	27,500	901	2,210	1,420	427	178	85	38	38
18	32	178	2,370	21,000	813	1,880	1,940	384	184	82	38	36
19	39	164	1,660	17,400	826	1,710	1,760	361	189	81	38	35
20	51	151	1,350	6,010	777	1,720	1,650	350	176	79	35	34
21	74	143	1,210	3,920	744	1,850	1,510	355	165	75	35	34
22	143	140	992	2,840	739	1,960	1,340	338	150	71	37	34
23	150	410	836	2,260	774	3,210	1,230	322	141	68	41	34
24	335	4,070	725	1,910	822	3,600	1,180	311	138	65	41	33
25	220	2,990	649	1,620	1,100	2,980	1,200	306	156	64	38	32
26	235	1,610	605	1,400	1,020	7,430	1,210	338	221	62	37	50
27	164	2,720	566	1,240	1,060	5,800	1,170	344	201	57	35	72
28	121	2,600	811	1,150	1,020	3,610	1,090	311	170	56	37	69
29	97	1,380	3,770	1,090	------	2,710	994	296	150	56	40	181
30	85	1,170	3,730	1,020	------	2,370	900	291	138	54	39	238
31	78	------	8,290	992	------	2,140	------	301	------	53	44	------
TOTAL	2,292	23,075	79,514	143,817	29,534	96,842	45,034	14,526	6,485	2,747	1,285	1,744
MEAN	73.9	769	2,565	4,639	1,055	3,124	1,501	469	216	88.6	41.5	58.1
MAX	335	4,070	8,290	27,500	2,190	10,900	2,800	837	372	133	51	238
MIN	24	65	566	774	739	873	900	291	138	53	35	32
AC-FT	4,550	45,770	157,700	285,300	58,580	192,100	89,320	28,810	12,860	5,450	2,550	3,460

CAL YR 1970 TOTAL 354,110 MEAN 970 MAX 17,900 MIN 20 AC-FT 702,400
WTR YR 1971 TOTAL 446,895 MEAN 1,224 MAX 27,500 MIN 24 AC-FT 886,400

PEAK DISCHARGE (BASE, 10,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0830	11.46	10,000	3-12	0100	14.73	14,600
1-17	1730	25.01	32,400				

14310700 South Myrtle Creek near Myrtle Creek, Oreg.

LOCATION.--Lat 43°01'55", long 123°11'30", in SE¼ sec.20, T.29 S., R.4 W., Douglas County, on left bank 0.6 mile downstream from School Hollow, 5.5 miles east of town of Myrtle Creek, and at mile 7.3.

DRAINAGE AREA.--43.9 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 775.25 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 65.9 cfs (57,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,160 cfs Jan. 17 (gage height, 6.24 ft, from floodmark); minimum observed, 2.0 cfs Oct. 4.
Period of record: Maximum discharge, 3,050 cfs Dec. 11, 1956 (gage height, 7.72 ft), from rating curve extended above 1,100 cfs; minimum observed, 0.20 cfs Aug. 2, 1961.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	7.6	71	220	74	119	170	86	64	15	5.4	9.6
2	3.6	7.4	180	152	69	111	135	79	58	15	4.4	10
3	3.1	7.1	250	104	63	175	128	75	50	14	4.4	13
4	2.0	7.1	180	85	148	295	113	71	42	13	3.9	9.0
5	2.1	11	104	72	380	229	106	69	37	13	3.9	7.8
6	3.9	14	113	64	268	217	96	63	33	11	4.2	8.1
7	4.9	12	217	54	190	241	94	58	30	11	3.7	7.4
8	4.7	14	178	51	158	286	77	58	28	9.8	4.1	7.1
9	4.6	67	128	133	131	256	74	55	25	10	3.7	6.6
10	4.7	26	90	384	117	259	98	50	26	11	3.9	6.0
11	4.1	32	88	268	106	432	88	48	25	10	2.6	6.0
12	4.6	113	71	188	96	585	81	51	23	9.8	2.4	5.8
13	4.1	37	75	148	88	366	75	55	23	11	3.4	5.6
14	4.4	25	72	122	79	268	72	45	22	9.2	3.6	3.8
15	5.2	21	152	647	88	241	71	41	20	9.2	3.3	4.4
16	5.2	20	493	672	81	205	67	45	18	7.8	3.3	4.6
17	5.1	18	241	1,820	72	168	64	42	18	7.4	2.7	4.4
18	5.2	15	158	1,400	66	135	148	39	24	6.4	3.0	3.9
19	6.4	16	106	617	104	100	117	35	22	9.2	3.3	3.6
20	8.1	15	90	432	96	90	135	34	19	7.1	3.8	4.2
21	8.6	14	77	320	85	80	138	34	18	6.0	3.8	5.0
22	16	17	64	241	86	208	126	33	14	5.6	5.6	5.8
23	18	24	53	199	145	422	119	31	13	6.0	5.8	6.0
24	25	205	48	185	124	338	133	30	13	6.4	3.8	6.2
25	15	145	44	182	172	268	170	29	29	5.6	3.3	7.1
26	26	120	39	135	150	328	155	61	27	5.4	4.4	12
27	14	317	35	115	160	277	140	43	22	4.9	3.8	12
28	11	175	33	104	148	271	119	39	21	4.4	5.4	12
29	9.2	92	96	92	------	180	100	34	18	5.2	6.8	26
30	8.4	71	178	83	------	172	92	34	17	5.0	5.4	20
31	8.4	------	387	77	------	188	------	34	------	4.9	8.1	------
TOTAL	247.9	1,665.2	4,111	9,366	3,544	7,510	3,301	1,501	799	269.3	129.2	243.0
MEAN	8.00	55.5	133	302	127	242	110	48.4	26.6	8.69	4.17	8.10
MAX	26	317	493	1,820	380	585	170	86	64	15	8.1	26
MIN	2.0	7.1	33	51	63	80	64	29	13	4.4	2.4	3.6
AC-FT	492	3,300	8,150	18,580	7,030	14,900	6,550	2,980	1,580	534	256	482

CAL YR 1970 TOTAL 22,203.15 MEAN 60.8 MAX 951 MIN .57 AC-FT 44,040
WTR YR 1971 TOTAL 32,686.60 MEAN 89.6 MAX 1,820 MIN 2.0 AC-FT 64,830

PEAK DISCHARGE (BASE, 1,000 CFS).--Jan. 17 (1600) 2,160 cfs (6.24 ft).

14311000 North Myrtle Creek near Myrtle Creek, Oreg.

LOCATION.--Lat 43°02'30", long 123°15'30", in SW¼ sec.14, T.29 S., R.5 W., Douglas County, on right bank 0.1 mile downstream from Bilger Creek, 1.5 miles northeast of town of Myrtle Creek, and at mile 2.1.

DRAINAGE AREA.--54.2 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 641.81 ft above mean sea level (levels by Douglas County road department).

AVERAGE DISCHARGE.--16 years, 75.5 cfs (54,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,990 cfs Jan. 17 (gage height, 11.05 ft); minimum, 2.8 cfs Aug. 15, 17-19.
Period of record: Maximum discharge, 3,260 cfs Jan. 20, 1964 (gage height, 10.51 ft), from rating curve extended above 1,800 cfs; maximum gage height, 11.58 ft Dec. 26, 1955 (backwater from debris); minimum discharge, 0.40 cfs Aug. 8, 1959, Aug. 23, 1961.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1738: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	5.0	130	338	80	170	180	80	51	14	4.2	7.6
2	3.9	5.0	193	213	74	168	159	73	47	13	4.2	9.7
3	3.9	5.0	258	148	68	295	136	68	40	12	4.1	9.7
4	3.9	5.0	282	113	117	437	119	63	35	12	4.2	7.3
5	4.3	8.2	176	92	346	366	105	59	31	12	4.1	6.2
6	4.9	9.4	133	78	367	315	95	56	29	11	4.0	6.0
7	5.3	7.9	158	69	268	347	86	52	27	10	4.1	5.7
8	5.3	18	149	73	203	406	77	49	26	9.8	3.7	5.5
9	5.2	36	121	100	163	356	93	46	25	10	3.6	5.0
10	4.9	15	99	217	136	338	100	43	25	11	3.5	4.7
11	4.6	29	93	246	114	484	89	40	23	9.8	3.3	5.0
12	4.6	67	80	207	102	613	90	40	22	9.4	3.3	4.8
13	4.4	34	82	169	91	459	86	41	23	9.0	3.4	4.4
14	4.7	24	84	145	88	389	81	36	21	8.4	3.4	4.3
15	4.7	20	151	685	93	314	76	35	20	8.2	3.3	4.5
16	4.5	20	471	917	87	265	73	42	19	7.8	3.4	4.6
17	4.6	18	342	2,120	81	216	116	37	18	6.8	3.1	4.2
18	5.4	17	215	1,770	86	181	190	34	23	6.4	3.1	3.9
19	6.4	16	147	933	103	160	167	32	20	7.2	3.1	3.8
20	7.3	15	117	613	103	143	172	33	18	6.2	3.3	3.8
21	8.2	16	96	414	100	128	171	33	17	5.6	3.4	4.1
22	10	19	77	308	112	163	155	30	15	5.0	4.9	3.9
23	15	47	65	253	147	282	149	28	14	5.2	5.2	3.9
24	15	154	56	208	162	286	152	27	15	5.6	3.9	3.9
25	13	114	51	173	181	272	180	28	30	5.4	3.6	5.2
26	18	74	48	148	179	308	165	48	24	4.9	3.6	10
27	9.8	222	45	131	198	288	138	38	19	4.7	4.0	10
28	7.0	187	46	117	189	248	117	34	17	4.7	5.0	13
29	6.1	106	100	105	------	205	101	31	15	4.4	4.3	35
30	5.6	104	183	94	------	202	88	31	14	4.5	4.7	24
31	5.4	------	519	87	------	201	------	32	------	4.6	7.2	------
TOTAL	209.7	1,417.5	4,767	11,284	4,038	9,005	3,706	1,319	723	248.6	122.2	223.7
MEAN	6.76	47.3	154	364	144	290	124	42.5	24.1	8.02	3.94	7.46
MAX	18	222	519	2,120	367	613	190	80	51	14	7.2	35
MIN	3.8	5.0	45	69	68	128	73	27	14	4.4	3.1	3.8
AC-FT	416	2,810	9,460	22,380	8,010	17,860	7,350	2,620	1,430	493	242	444

CAL YR 1970 TOTAL 24,248.6 MEAN 66.4 MAX 876 MIN 2.0 AC-FT 48,100
WTR YR 1971 TOTAL 37,063.7 MEAN 102 MAX 2,120 MIN 3.1 AC-FT 73,520

PEAK DISCHARGE (BASE, 1,100 CFS).--Jan. 17 (1630) 2,990 cfs (11.05 ft).

14311200 Olalla Creek near Tenmile, Oreg.

LOCATION.--Lat 43°02'20", long 123°32'35", in NW¼ sec.21, T.29 S., R.7 W., Douglas County, on left bank 0.5 mile downstream from Berry Creek, 4.4 miles south of Tenmile, and at mile 11.7.

DRAINAGE AREA.--61.3 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 749.53 ft above mean sea level. Prior to June 21, 1957, nonrecording gage at site 0.3 mile downstream at datum 7.83 ft lower.

AVERAGE DISCHARGE.--15 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,280 cfs Jan. 17 (gage height, 11.49 ft); no flow Oct. 2, 3.
Period of record: Maximum discharge, 9,160 cfs Jan. 3, 1966 (gage height, 11.98 ft, from floodmark); no flow at times.
Maximum stage since at least 1920, 13.6 ft Dec. 26, 1955, from floodmarks, present site and datum (discharge, 12,300 cfs), from rating curve extended above 6,000 cfs.

REMARKS.--Records good except those below 10 cfs, which are fair. No regulation. Some diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1935. 1959(M): WRD Oreg. 1968: 1967, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	3.9	202	455	35	146	248	43	23	5.5	.78	1.2
2	0	3.9	335	246	30	148	193	41	24	5.1	.78	2.0
3	0	3.9	660	155	24	343	146	38	22	4.8	.60	2.2
4	.08	4.2	470	110	70	534	119	35	20	4.4	.60	1.7
5	.10	6.6	268	86	250	424	99	33	18	4.1	.68	1.3
6	.16	11	348	70	265	364	82	31	17	3.8	.68	1.1
7	.23	11	524	60	195	418	70	30	15	3.8	.68	.96
8	.28	18	348	54	143	542	60	27	14	3.5	.51	.86
9	.33	42	206	56	112	460	219	25	13	3.5	.44	.78
10	.44	22	142	94	87	614	439	24	13	3.8	.38	.60
11	.33	35	113	148	67	1,290	313	22	12	3.8	.23	.51
12	.28	82	91	149	56	1,400	253	21	11	3.5	.23	.51
13	.44	42	80	124	46	925	201	20	12	3.3	.19	.44
14	.51	28	80	121	44	722	152	19	10	3.3	.19	.44
15	.51	19	204	2,600	50	538	120	18	9.3	3.0	.19	.38
16	.59	17	716	1,780	44	394	104	27	8.7	2.8	.16	.44
17	.68	14	395	4,530	38	288	175	23	8.2	2.4	.16	.38
18	.77	12	212	2,030	41	223	250	20	11	2.6	.16	.33
19	1.1	10	134	1,010	76	191	199	18	9.3	2.8	.19	.33
20	2.4	9.4	104	650	85	191	161	17	8.2	2.0	.19	.28
21	6.6	8.5	84	427	80	205	132	17	7.2	1.7	.19	.28
22	10	9.4	66	298	79	223	112	17	6.7	1.4	.28	.23
23	15	33	55	219	77	328	97	15	5.9	1.2	.33	.19
24	20	202	47	169	99	352	85	14	5.9	1.2	.33	.23
25	13	139	43	132	157	328	79	14	9.8	1.2	.19	.38
26	20	83	41	105	165	710	73	23	10	1.1	.19	1.6
27	12	283	38	84	193	766	65	24	8.2	.96	.23	2.8
28	7.7	170	65	71	175	442	58	20	7.7	1.1	.28	3.3
29	5.9	90	353	59	-------	295	51	18	6.7	.96	.51	15
30	5.0	103	362	48	-------	270	47	17	5.9	.96	.51	14
31	4.4	-------	890	41	-------	290	-------	17	-------	.86	.86	-------
TOTAL	128.86	1,515.8	7,676	16,181	2,783	14,364	4,402	728	352.7	84.44	11.92	54.75
MEAN	4.16	50.5	248	522	99.4	463	147	23.5	11.8	2.72	.38	1.83
MAX	20	283	890	4,530	265	1,400	439	43	24	5.5	.86	15
MIN	0	3.9	38	41	24	146	47	14	5.9	.86	.16	.19
AC-FT	256	3,010	15,230	32,100	5,520	28,490	8,730	1,440	700	167	24	109

CAL YR 1970 TOTAL 36,182.32 MEAN 99.1 MAX 2,540 MIN 0 AC-FT 71,770
WTR YR 1971 TOTAL 48,282.47 MEAN 132 MAX 4,530 MIN 0 AC-FT 95,770

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12- 3	1500	5.11	1,050	1-17	1430	11.49	8,280
12-31	0530	5.22	1,110	3-11	2100	6.78	2,470
1-15	1330	9.78	5,490				

14311300 Tenmile Creek at Tenmile, Oreg.

LOCATION.--Lat 43°05'30", long 123°34'05", in SE¼ sec.31, T.28 S., R.7 W., Douglas County, on left bank 50 ft downstream from State Highway 42 bridge, 200 ft south of Tenmile post office, 0.4 mile downstream from Shields Creek, and at mile 3.7.

DRAINAGE AREA.--29.6 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 671.41 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,650 cfs Jan. 17 (from measurement); maximum gage height, 13.14 ft (backwater); minimum, 0.05 cfs Aug. 17.

Period of record: Maximum discharge, 3,650 cfs Jan. 17, 1971 (from measurement); maximum gage height, 13.14 ft (backwater); minimum, 0.01 cfs Aug. 19, 1970.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in WRD Oreg. papers indicated.

WRD	Date	Discharge (cfs)	Gage height (feet)
1968	Jan. 15, 1968	1,460	7.33
1969	Dec. 10, 1968	1,940	8.27
1970	Dec. 21, 1969	3,260	10.42

REMARKS.--Records good. No regulation. Some diversions for irrigation above station.

REVISIONS.--The figures of peak discharge for water years 1968-70 have been revised as shown in the following table. They supersede figures published in WRD Oreg. 1968-70.

REVISED PEAK DISCHARGE.--1968: Jan. 15 (0330), 1,460 cfs (7.33 ft); Feb. 2 (2400) 1,000 cfs (6.26 ft); Feb. 23 (0230) 1,100 cfs (6.49 ft).

1969: Dec. 10 (1030) 1,940 cfs (8.27 ft); Jan. 12 (2230) 1,660 cfs (7.73 ft); Feb. 8 (2230) 1,600 cfs (7.61 ft).

1970: Dec. 21 (0330) 3,260 cfs (10.42 ft); Dec. 26 (0400) 1,840 (8.07 ft); Jan. 23 (1500) 2,240 cfs (8.81 ft); Jan. 26 (2030) 2,150 cfs (8.66 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.7	210	302	36	118	167	31	13	4.3	.50	1.6
2	.12	1.5	240	182	34	120	124	30	11	3.9	.32	3.0
3	.14	1.5	448	126	32	293	98	27	10	3.6	.44	2.2
4	.09	1.9	323	98	89	365	80	26	9.5	3.3	.32	1.3
5	.16	4.5	191	78	182	284	69	24	8.3	3.3	.38	.94
6	.38	5.3	197	68	152	227	59	23	7.9	3.3	.38	1.0
7	.45	4.6	281	62	114	224	50	21	7.9	3.0	.74	.94
8	.55	10	206	60	91	245	47	20	7.5	2.5	.66	.74
9	.49	20	134	69	74	206	170	19	7.1	2.5	.74	.74
10	.44	10	116	122	63	281	233	18	7.5	2.5	.58	.74
11	.52	25	112	218	53	552	167	16	7.1	2.7	.44	.74
12	.32	50	104	188	48	632	140	16	7.1	2.5	.38	.74
13	.30	23	102	138	43	520	116	16	7.1	2.5	.38	.50
14	.33	14	128	134	47	371	94	14	6.7	2.2	.44	.44
15	.32	9.7	263	816	66	287	77	15	6.3	2.2	.58	.44
16	.21	9.2	365	1,020	80	215	72	27	5.9	1.8	.18	.50
17	.34	7.9	254	2,250	69	155	182	20	5.9	1.6	.05	.44
18	.31	7.0	152	1,190	69	118	203	17	6.7	1.4	.09	.27
19	.66	6.4	118	569	81	102	136	16	6.3	1.4	.44	.22
20	1.5	5.8	108	329	78	94	112	15	5.5	1.3	.50	.27
21	3.5	5.2	96	221	71	92	92	14	5.1	1.0	.44	.12
22	5.7	6.3	80	155	71	114	78	13	4.7	.94	.74	.15
23	8.5	49	74	120	65	203	71	12	4.7	.94	.74	.15
24	6.5	292	69	100	94	236	66	11	4.7	1.0	.44	.38
25	6.4	130	69	80	152	218	60	12	8.9	.94	.38	.94
26	8.1	83	69	65	138	338	54	14	7.5	.74	.38	2.2
27	4.9	298	69	55	152	326	49	12	5.9	.74	.58	1.6
28	3.6	168	94	50	134	218	43	11	5.5	.66	.74	2.2
29	2.9	97	281	44	------	152	38	10	4.7	.74	.50	10
30	2.3	117	344	40	------	179	35	10	4.7	.94	.50	7.5
31	1.9	------	696	38	------	227	------	10	------	.94	1.3	------
TOTAL	62.03	1,464.5	5,993	8,987	2,378	7,712	2,982	540	210.7	61.38	15.28	42.80
MEAN	2.00	48.8	193	290	84.9	249	99.4	17.4	7.02	1.98	.49	1.43
MAX	8.5	298	696	2,250	182	632	233	31	13	4.3	1.3	10
MIN	.09	1.5	69	38	32	92	35	10	4.7	.66	.05	.12
CFSM	.07	1.81	7.17	10.8	3.16	9.26	3.70	.65	.26	.07	.02	.05
IN.	.09	2.03	8.29	12.43	3.29	10.66	4.12	.75	.29	.08	.02	.06
AC-FT	123	2,900	11,890	17,830	4,720	15,300	5,910	1,070	418	122	30	85

CAL YR 1970 TOTAL 26,333.61 MEAN 72.1 MAX 1,880 MIN .02 CFSM 2.68 IN 36.42 AC-FT 52,230
WTR YR 1971 TOTAL 30,448.69 MEAN 83.4 MAX 2,250 MIN .05 CFSM 3.10 IN 42.11 AC-FT 60,390

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0300	6.26	1,000	3-11	2000	6.45	1,080
1-17	1430	13.14	3,650				

14311500 Lookingglass Creek at Brockway, Oreg.

LOCATION.--Lat 43°07'50", long 123°27'50", in SE¼SE¼ sec.13, T.28 S., R.7 W., Douglas County, on left bank 1.7 miles northwest of Brockway and at mile 2.85.

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 540 ft (from topographic map). Prior to Oct. 5, 1967, water-stage recorder at site 2.3 miles downstream at different datum.

AVERAGE DISCHARGE.--16 years, 302 cfs (218,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,600 cfs Jan. 17 (gage height, 17.59 ft); no flow October 1-23.
Period of record: Maximum discharge, 35,000 cfs Dec. 26, 1955 (gage height, 24.93 ft, site and datum then in use), from rating curve extended above 7,200 cfs on basis of slope-area measurement of peak flow; maximum gage height, 25.28 ft Dec. 23, 1964 (backwater from South Umpqua River, site and datum then in use); no flow at times each year.

REMARKS.--Records good. No regulation. Many diversions by pumping for irrigation above station.

REVISIONS.--WRD 1968 Oreg.: Drainage area (former site).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	5.6	815	1,300	157	586	646	130	43	8.2	.22	.14
2	0	5.0	1,170	722	144	570	510	122	49	7.4	.22	.14
3	0	5.0	1,620	490	136	1,150	411	116	44	7.8	.14	.14
4	0	6.0	1,300	365	285	1,650	340	105	40	6.6	.08	.14
5	0	11	666	283	678	1,320	295	100	36	5.6	.08	.08
6	0	16	682	231	658	998	253	92	33	5.3	.08	.08
7	0	16	992	204	502	910	221	84	30	4.7	.08	1.2
8	0	28	780	180	399	1,080	195	78	28	4.4	.08	1.6
9	0	64	522	182	328	920	542	72	25	3.7	.08	1.2
10	0	42	383	335	285	1,090	1,010	67	25	3.7	.08	.94
11	0	39	332	626	235	2,330	714	62	25	4.2	.08	.80
12	0	152	275	606	211	3,240	606	59	23	4.2	.04	.54
13	0	65	248	498	187	2,530	498	57	23	3.7	.02	.32
14	0	42	317	494	189	1,820	414	52	22	3.7	.02	.32
15	0	30	726	4,410	275	1,320	340	50	19	3.4	.02	.22
16	0	26	1,710	4,650	293	950	300	79	18	2.9	.02	.22
17	0	22	1,090	11,300	253	706	380	73	17	2.1	.02	.22
18	0	19	614	6,050	240	550	600	58	17	2.1	.02	.22
19	0	16	418	2,610	300	454	500	52	19	1.6	.02	.14
20	0	15	350	1,570	293	414	420	47	16	1.4	.02	.14
21	0	13	302	1,040	275	405	340	47	15	1.2	.01	.14
22	0	15	238	726	278	429	280	46	14	.80	.02	.14
23	0	80	198	570	263	750	260	41	12	.54	.04	.14
24	26	550	167	447	308	845	240	38	11	.32	.02	.04
25	19	310	145	381	546	845	220	38	15	.22	.01	.04
26	28	255	131	320	570	1,510	200	47	22	.14	.01	.22
27	17	845	121	280	710	1,660	190	54	17	.08	.01	.22
28	12	622	184	245	670	1,020	173	46	14	.08	.01	.32
29	9.0	314	1,080	217	------	710	152	40	13	.14	.02	1.6
30	7.0	344	1,150	195	------	694	140	39	10	.32	.02	27
31	6.0	------	2,690	175	------	805	------	38	------	.22	.22	------
TOTAL	124.0	3,972.6	21,416	41,702	9,668	34,261	11,390	2,029	695	90.76	1.81	38.66
MEAN	4.00	132	691	1,345	345	1,105	380	65.5	23.2	2.93	.058	1.29
MAX	28	845	2,690	11,300	710	3,240	1,010	130	49	8.2	.22	27
MIN	0	5.0	121	175	136	405	140	38	10	.08	.01	.04
AC-FT	246	7,880	42,480	82,720	19,180	67,960	22,590	4,020	1,380	180	3.6	77

CAL YR 1970 TOTAL 97,541.61 MEAN 267 MAX 6,440 MIN 0 AC-FT 193,500
WTR YR 1971 TOTAL 125,388.83 MEAN 344 MAX 11,300 MIN 0 AC-FT 248,700

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-31	0230	7.60	3,260	3-12	0030	9.47	4,970
1-17	1730	17.59	15,600				

14312000 South Umpqua River near Brockway, Oreg.

LOCATION.--Lat 43°08'00", long 123°23'50", in SW¼ sec.15, T.28 S., R.6 W., Douglas County, on right bank 40 ft downstream from Winston Bridge,on U.S. Highway 99, 2.5 miles northeast of Brockway, 4.2 miles downstream from Lookingglass Creek, and at mile 132.8.

DRAINAGE AREA.--1,670 sq mi.

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 462.52 ft above mean sea level (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft of present site at various datums. Prior to Oct. 1, 1970 at datum 461.86 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--37 years (1906-11, 1923-26, 1942-71) 2,897 cfs (23.56 inches per year, 2,099,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 86,600 cfs Jan. 17 (gage height, 30.62 ft); minimum, 75 cfs Oct. 4.
Period of record: Maximum discharge, 105,000 cfs Dec. 23, 1964 (gage height, 34.28 ft); minimum observed, 36 cfs Aug. 12, 13, 1926.

Flood of Feb. 21, 1927, reached a stage of about 31.2 ft, present site and datum (discharge, 89,500 cfs, revised). Discharge for flood of February 1890, which reached a stage 1.9 ft higher according to local resident who lived nearby at time of both floods has been found to be in error and should not be used.

REMARKS.--Records excellent. No regulation. Many small diversions for irrigation above station. Records of suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	289	6,260	13,900	3,590	4,320	6,830	3,090	1,800	782	171	143
2	78	267	6,660	8,210	3,400	3,970	5,850	3,150	1,960	718	169	185
3	77	247	8,930	5,510	3,070	5,400	5,160	3,250	1,800	669	159	227
4	76	242	12,700	4,240	3,190	8,560	4,760	3,360	1,640	630	151	284
5	78	246	6,680	3,430	5,830	7,550	4,700	3,270	1,520	585	149	230
6	81	414	9,840	2,890	7,930	6,250	4,890	2,970	1,460	545	145	195
7	84	647	15,100	2,540	6,710	6,090	4,720	2,700	1,440	503	141	178
8	88	583	15,000	2,310	5,480	7,680	4,040	2,790	1,410	481	139	167
9	91	3,060	9,030	3,030	4,680	7,730	4,410	2,800	1,330	454	135	161
10	99	2,220	6,130	9,120	4,320	7,230	7,630	2,550	1,300	440	128	151
11	99	1,420	5,180	10,200	4,570	15,700	6,140	2,510	1,320	436	123	143
12	96	4,870	4,620	7,510	4,220	28,200	5,540	2,750	1,230	416	118	137
13	94	3,600	4,010	5,770	4,150	18,800	4,980	3,310	1,180	396	115	130
14	95	2,060	3,810	5,000	3,790	13,700	4,590	2,970	1,140	380	112	123
15	93	1,380	5,000	22,300	4,360	11,100	4,170	2,450	1,050	357	111	117
16	95	1,040	18,300	36,900	4,340	8,800	3,790	2,350	987	339	111	117
17	91	980	13,200	66,500	3,720	7,150	4,070	2,250	950	322	106	115
18	90	877	7,770	66,600	3,300	5,870	5,850	1,970	956	311	106	111
19	98	791	5,300	35,100	3,530	5,240	5,480	1,810	1,040	304	103	103
20	110	741	4,200	24,000	3,300	5,160	5,120	1,710	987	290	103	100
21	147	684	3,730	15,600	3,070	5,680	5,100	1,650	926	275	102	97
22	272	663	3,040	11,100	2,980	6,410	4,410	1,540	884	251	106	91
23	411	847	2,560	8,430	3,480	17,100	4,110	1,510	848	236	121	91
24	923	13,900	2,240	7,010	3,590	17,000	4,090	1,610	806	227	123	93
25	905	15,700	1,990	5,810	6,070	13,500	4,060	1,730	830	218	125	99
26	734	8,320	1,840	4,950	5,220	21,600	3,930	2,030	1,950	209	115	114
27	722	9,420	1,730	4,340	5,180	18,600	3,860	2,210	1,530	195	109	167
28	485	11,000	1,730	3,970	4,870	12,500	3,720	1,990	1,180	185	109	294
29	382	5,910	6,910	3,730	------	9,430	3,460	1,910	987	180	117	343
30	334	4,660	8,550	3,540	------	8,350	3,180	1,820	866	173	127	890
31	311	------	19,100	3,530	------	8,200	------	1,720	------	173	135	------
TOTAL	7,422	97,078	221,110	407,070	121,940	322,870	142,640	73,730	37,307	11,680	3,884	5,396
MEAN	239	3,236	7,133	13,130	4,355	10,420	4,755	2,378	1,244	377	125	180
MAX	923	15,700	19,100	66,600	7,930	28,200	7,630	3,360	1,960	782	171	890
MIN	76	242	1,730	2,310	2,980	3,970	3,180	1,510	806	173	102	91
CFSM	.14	1.94	4.27	7.86	2.61	6.24	2.85	1.42	.74	.23	.07	.11
IN.	.17	2.16	4.93	9.07	2.72	7.19	3.18	1.64	.83	.26	.09	.12
AC-FT	14,720	192,600	438,600	807,400	241,900	640,400	282,900	146,200	74,000	23,170	7,700	10,700

CAL YR 1970 TOTAL 1,138,059 MEAN 3,118 MAX 39,100 MIN 60 CFSM 1.87 IN 25.35 AC-FT 2,257,000
WTR YR 1971 TOTAL 1,452,127 MEAN 3,978 MAX 66,600 MIN 76 CFSM 2.38 IN 32.35 AC-FT 2,880,000

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	2230	14.81	24,800	1-17	2200	30.62	86,600
12- 7	2230	13.65	20,800	3-12	0630	17.27	32,900
12-16	1230	14.06	22,200	3-26	1400	15.17	25,700
12-31	1430	14.54	23,900				

14312200 Deer Creek near Roseburg, Oreg.

LOCATION.--Lat 43°13'10", long 123°16'39", in NE¼SW¼ sec.15, T.27 S., R.5 W., Douglas County, on right bank 0.6 mile upstream from Shick Creek, 3.3 miles east of Roseburg, and at mile 4.0.

DRAINAGE AREA.--53.2 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 498.95 ft above mean sea level (Douglas County Highway Department). Prior to July 3, 1969, nonrecording gage at site 0.5 mile downstream at datum 12.85 ft lower.

AVERAGE DISCHARGE.--16 years, 79.3 cfs (57,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,270 cfs Jan. 17 (gage height, 13.43 ft); minimum, .02 cfs Sept. 19.

Period of record: Maximum discharge, 7,910 cfs Dec. 28, 1965 (gage height, 14.76 ft, from floodmark), from rating curve extended above 2,200 cfs on basis of slope-area measurements at gage heights 13.38 and 13.67 ft; no flow at times.

Flood of Oct. 29, 1950, reached a stage of 13.38 ft, from floodmarks (discharge, 6,460 cfs, from rating curve extended above 2,200 cfs as explained above).

REMARKS.--Records fair. No regulation. Diversions above station for logponds and many small diversions by pumping for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.7	249	307	51	205	146	52	47	12	2.9	2.7
2	1.1	2.3	323	185	46	221	122	46	39	11	2.7	2.0
3	1.1	2.1	395	129	42	577	105	42	31	11	2.5	2.1
4	1.1	2.3	281	104	146	499	91	40	25	10	2.5	1.2
5	1.5	4.6	177	84	251	368	80	37	22	10	2.7	.89
6	1.7	4.6	137	72	207	269	72	34	20	9.8	2.7	1.5
7	2.1	3.7	185	67	152	259	67	30	19	10	2.9	1.2
8	2.0	8.4	156	76	118	227	58	28	18	10	2.3	.89
9	1.8	29	126	93	98	180	118	26	17	10	2.0	1.0
10	1.7	14	110	161	84	241	120	24	17	10	1.7	.79
11	1.4	34	114	225	71	445	99	22	16	10	1.8	.70
12	1.2	73	93	195	63	532	97	22	16	10	2.3	.61
13	1.5	37	99	161	56	445	84	24	16	9.8	2.3	.53
14	1.7	23	146	255	65	345	73	20	15	8.1	2.5	.53
15	1.5	17	388	1,340	86	247	66	20	14	8.8	2.3	.39
16	1.1	17	867	850	77	203	62	25	14	9.1	2.3	.39
17	1.1	15	373	2,390	64	161	96	22	13	8.4	2.3	.27
18	1.4	12	203	1,380	84	130	115	20	16	8.4	2.3	.08
19	2.5	12	143	748	106	112	93	18	14	8.8	2.5	.03
20	3.1	11	121	550	86	99	125	19	13	4.9	2.3	.08
21	4.9	11	99	323	78	88	114	19	12	3.1	2.1	.08
22	6.8	15	82	223	100	162	104	17	12	3.3	3.3	.39
23	9.8	61	71	174	116	295	123	17	12	3.1	3.5	.53
24	9.8	285	62	140	123	320	133	17	12	2.9	2.9	.70
25	9.1	168	58	115	168	325	135	17	19	3.1	2.3	1.7
26	12	126	55	98	194	440	111	45	16	2.9	2.0	4.0
27	6.2	538	53	85	263	335	91	30	13	2.7	2.0	4.0
28	4.4	253	76	75	251	231	77	24	13	2.9	2.5	4.9
29	3.7	143	355	66	------	173	65	21	12	3.1	2.7	12
30	3.3	197	309	60	------	203	57	21	12	3.1	3.1	8.4
31	3.1	------	637	55	------	182	------	22	------	2.5	4.0	------
TOTAL	104.8	2,121.7	6,543	10,786	3,246	8,519	2,899	821	535	222.8	78.2	54.58
MEAN	3.38	70.7	211	348	116	275	96.6	26.5	17.8	7.19	2.52	1.82
MAX	12	538	867	2,390	263	577	146	52	47	12	4.0	12
MIN	1.1	2.1	53	55	42	88	57	17	12	2.5	1.7	.03
AC-FT	208	4,210	12,980	21,390	6,440	16,900	5,750	1,630	1,060	442	155	108

CAL YR 1970 TOTAL 28,344.28 MEAN 77.7 MAX 1,570 MIN .07 AC-FT 56,220
WTR YR 1971 TOTAL 35,931.08 MEAN 98.4 MAX 2,390 MIN .03 AC-FT 71,270

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-16	0730	8.22	1,300	1-17	1400	13.43	4,270
1-15	1300	11.59	3,020				

UMPQUA RIVER BASIN

14313000 Lemolo Lake near Toketee Falls, Oreg.

LOCATION.--Lat 43°19'10", long 122°11'20", in SE¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, at Lemolo No. 1 diversion dam on North Umpqua River, 0.8 mile downstream from Lake Creek, 13 miles east of town of Toketee Falls, and at mile 93.01.

DRAINAGE AREA.--170 sq mi.

PERIOD OF RECORD.--July 1954 to current year. Prior to October 1960 published as Lemolo Reservoir near Toketee Falls.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Pacific Power & Light Co.).

EXTREMES.--Current year: Maximum contents observed, 13,520 acre-ft Oct. 10, July 17, 26, Aug. 16 (elevation, 4,148.4 ft); minimum observed, 2,610 acre-ft Mar. 22 (elevation, 4,111.6 ft).

Period of record: Maximum contents observed, 14,000 acre-ft Dec. 24, 1964 (elevation, 4,149.5 ft); minimum observed, 11 acre-ft Mar. 5, 1955 (elevation, 4,055.4 ft).

REMARKS.--Lake is formed by Lemolo No. 1 diversion dam. Storage began July 15, 1954. Usable capacity for normal operation, 12,520 acre-ft between elevations 4,097.0 and 4,148.5 ft. Dead storage below 4,097.0 ft, 1,040 acre-ft. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Gage readings furnished by Pacific Power & Light Co.

MONTHEND ELEVATIONS AND CONTENTS AT 0900, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,147.5	13,140	-
Oct. 31	4,138.6	9,750	-3,390
Nov. 30	4,142.2	11,120	+1,370
Dec. 31	4,124.4	5,390	-5,730
CAL YR 1970	-	-	+480
Jan. 31	4,142.2	11,050	+5,660
Feb. 28	4,131.0	7,290	-3,760
Mar. 31	4,127.0	6,110	-1,180
Apr. 30	4,130.7	7,200	+1,090
May 31	4,144.8	12,040	+4,840
June 30	4,145.4	12,280	+240
July 31	4,147.6	13,180	+900
Aug. 31	4,148.0	13,350	+170
Sept.30	4,137.7	9,450	-3,900
WTR YR 1971	-	-	-3,690

14313500 North Umpqua River below Lemolo Lake, near Toketee Falls, Oreg.

LOCATION.--Lat 43°19'20", long 122°11'40", in NW¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, on right bank 0.4 mile downstream from Lemolo Lake, 13 miles east of town of Toketee Falls, and at mile 92.6.

DRAINAGE AREA.--170 sq mi.

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Published as "below Lake Creek" prior to October 1952, as "below Lake Creek, near Toketee Falls" October 1952 to September 1953, and as "below Lemolo Reservoir near Toketee Falls" October 1953 to September 1960.

GAGE.--Water-stage recorder. Altitude of gage is 4,025 ft (from river-profile map). Prior to July 15, 1954, at site 1 mile upstream at datum about 65 ft higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft upstream at datum 14.11 ft higher.

AVERAGE DISCHARGE.--43 years, 416 cfs (33.23 inches per year, 301,400 acre-ft per year), adjusted for storage.

EXTREMES (River only).--Current year: Maximum discharge, 1,080 cfs June 3 (gage height, 7.15 ft); minimum, 12 cfs Oct. 16.

Period of record: Maximum discharge, 4,600 cfs Dec. 25, 1964, from rating curve extended above 450 cfs on basis of slope-area measurement of peak flow (gage height, 9.20 ft, from floodmark); minimum, 6.4 cfs July 17, 1954.

(Combined flow).--Current year: Maximum daily discharge, 1,060 cfs May 30; minimum daily, 20 cfs Nov. 4, 5.

Period of record: Maximum discharge, 4,680 cfs Dec. 25, 1964, from river rating curve extended above 450 cfs on basis of slope-area measurement of peak flow; minimum daily, 9.7 cfs May 13, 1955.

REMARKS.--Records good. Flow regulated since 1954 by Lemolo Lake (see station 14313000); also slightly regulated by Diamond Lake. All records given herein include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mile above station for power generation with return flow 4.3 miles downstream.

REVISIONS.--WSP 1448: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	196	509	491	541	529	481	429	1,050	650	440	460
2	465	152	523	478	541	529	453	408	1,020	800	434	452
3	214	61	539	459	541	529	508	257	1,020	726	542	459
4	165	20	537	461	541	529	522	167	930	677	475	527
5	271	20	537	528	539	526	522	221	839	633	474	455
6	241	215	537	526	539	529	499	342	846	615	454	457
7	241	486	309	420	539	524	442	345	846	611	366	439
8	262	431	520	508	537	523	498	348	839	591	360	251
9	339	327	383	271	536	526	421	347	839	488	456	455
10	377	422	535	202	538	524	478	412	908	430	456	522
11	389	231	539	396	446	514	487	501	917	419	455	527
12	422	113	538	391	540	498	495	568	911	450	456	523
13	441	434	539	412	536	516	495	757	905	470	455	530
14	371	492	541	515	530	526	493	852	855	466	435	529
15	369	493	395	371	494	529	486	848	758	469	382	526
16	375	494	408	432	505	532	473	844	806	471	420	524
17	419	495	408	164	510	532	426	828	838	367	449	521
18	173	496	532	160	527	529	424	730	837	553	458	523
19	441	497	533	131	526	525	427	570	836	546	457	523
20	446	497	534	167	532	522	413	712	429	547	460	522
21	449	496	534	265	531	517	415	762	474	545	422	522
22	480	496	461	557	530	398	411	760	731	539	394	520
23	552	347	528	551	470	342	407	762	759	537	429	518
24	562	138	528	549	502	205	182	781	767	540	450	513
25	576	305	529	545	531	223	120	804	748	540	458	471
26	561	511	529	545	531	157	449	890	791	532	461	515
27	561	508	530	545	530	165	444	1,020	849	535	427	514
28	561	505	530	544	532	349	444	1,020	800	532	358	509
29	559	502	462	542	------	238	437	1,050	800	541	358	508
30	559	501	531	543	------	474	420	1,060	750	544	433	511
31	689	------	531	541	------	481	------	1,050	------	441	462	------
TOTAL	12,969	10,891	15,589	13,210	14,695	14,040	13,172	20,545	24,598	16,805	13,546	14,836
MEAN	418	363	503	426	525	453	439	663	823	542	437	495
MAX	689	511	541	557	541	532	522	1,060	1,050	800	542	530
MIN	165	20	309	131	446	157	120	167	429	367	358	251
AC-FT	25,720	21,600	30,920	26,200	29,150	27,850	26,130	40,750	48,990	33,330	26,870	29,430
MEAN†	363	386	410	518	457	434	457	741	827	557	440	429
CFSM†	2.14	2.27	2.41	3.05	2.69	2.55	2.69	4.36	4.86	3.28	2.59	2.52
IN.†	2.46	2.53	2.78	3.51	2.80	2.94	3.00	5.03	5.43	3.78	2.98	2.82
AC-FT†	22,330	22,970	25,190	31,860	25,390	26,670	27,220	45,590	49,230	34,230	27,040	25,530

CAL YR 1970 TOTAL 144,520 MEAN 396 MAX 689 MIN 11 AC-FT 286,700 MEAN† 397 CFSM† 2.34 IN.† 31.68 AC-FT† 287,200
WTR YR 1971 TOTAL 184,996 MEAN 507 MAX 1,060 MIN 20 AC-FT 366,900 MEAN† 502 CFSM† 2.95 IN.† 40.07 AC-FT† 363,200

† Adjusted for change in contents in Lemolo Lake.

14314500 Clearwater River above Trap Creek, near Toketee Falls, Oreg.

LOCATION.--Lat 43°14'40", long 122°17'10", in SW¼ sec.1, T.27 S., R.4 E., Douglas County, on right bank 900 ft downstream from Clearwater No. 1 diversion dam, 0.4 mile upstream from Trap Creek, 8.7 miles east of town of Toketee Falls, and at mile 7.8.

DRAINAGE AREA.--41.6 sq mi.

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Monthly discharge only December 1927 to March 1928, published in WSP 1318. Prior to October 1952, published as "above Trap Creek."

GAGE.--Water-stage recorder. Datum of gage is 3,862.84 ft above mean sea level (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mile downstream at different datums.

AVERAGE DISCHARGE.--43 years, 169 cfs (55.17 inches per year, 122,400 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 425 cfs Jan. 18 (gage height, 5.73 ft); minimum daily, 4.3 cfs Oct. 1-3.
Period of record: Maximum discharge, 848 cfs Dec. 23, 1964 (gage height, 7.19 ft); maximum gage height, 7.87 ft (log jam); minimum discharge, 0.10 cfs Jan. 8-14, 19-21, 1954.
(Combined flow).--Current year: Maximum discharge, 438 cfs Jan. 18; minimum daily, 134 cfs Oct. 1-3, 7-16.
Period of record: Maximum discharge, 1,020 cfs Dec. 23, 1964; minimum daily, 91 cfs Nov. 4-6, 1931.

REMARKS.--Records good. All records given herein include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft above station for generation of power and returns water to Clearwater River 2.5 miles below station.

REVISIONS.--WSP 1124: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	141	161	150	192	182	192	212	279	249	198	184
2	134	142	160	148	190	181	192	217	269	248	197	189
3	134	143	158	148	188	182	198	231	265	244	195	183
4	135	144	156	148	190	182	198	245	264	239	194	180
5	135	152	159	147	187	180	203	249	264	237	192	179
6	136	150	163	146	186	181	205	249	269	234	191	179
7	134	148	169	146	184	180	206	252	274	232	190	178
8	134	165	165	150	182	178	207	261	274	230	188	177
9	134	172	162	160	182	179	210	265	274	232	187	177
10	134	156	160	161	188	179	208	269	277	229	187	176
11	134	173	160	156	187	193	205	280	273	223	186	176
12	134	172	158	153	186	186	204	309	273	220	185	177
13	134	157	157	153	188	182	204	343	274	219	185	176
14	134	153	157	153	193	180	204	316	269	220	184	176
15	134	151	163	161	199	160	205	313	268	227	184	176
16	134	155	159	170	194	161	206	304	268	230	184	176
17	135	153	156	391	194	159	205	290	266	229	183	176
18	136	151	154	413	194	159	203	279	278	227	182	176
19	137	151	153	353	192	159	202	273	281	225	182	176
20	141	149	155	355	190	159	204	267	281	225	182	176
21	141	148	153	301	185	159	200	260	282	222	181	176
22	141	148	153	272	189	167	200	261	283	217	184	176
23	160	170	152	250	188	174	199	269	282	213	182	176
24	153	296	151	233	190	175	196	279	271	211	180	176
25	146	251	150	222	188	178	195	295	298	208	180	180
26	143	195	151	213	186	184	198	318	290	206	179	185
27	141	182	150	207	186	183	200	312	267	206	181	181
28	141	171	152	201	185	190	203	320	255	205	181	183
29	140	166	152	198	------	189	204	320	248	205	179	187
30	140	165	152	195	------	190	207	304	247	203	179	184
31	141	------	154	193	------	193	------	291	------	200	182	------
TOTAL	4,284	4,970	4,852	6,357	5,287	5,474	6,063	8,653	8,163	6,915	5,744	5,367
MEAN	138	166	157	205	189	177	202	279	272	223	185	179
MAX	160	296	169	413	199	193	210	343	298	249	198	189
MIN	134	141	150	146	182	159	192	212	247	200	179	176
CFSM	3.32	3.99	3.77	4.93	4.54	4.25	4.86	6.71	6.54	5.36	4.45	4.30
IN.	3.83	4.44	4.34	5.68	4.73	4.90	5.42	7.74	7.30	6.18	5.14	4.80
AC-FT	8,500	9,860	9,620	12,610	10,490	10,860	12,030	17,160	16,190	13,720	11,390	10,650

CAL YR 1970 TOTAL 62,847 MEAN 172 MAX 296 MIN 134 CFSM 4.13 IN 56.20 AC-FT 124,700
WTR YR 1971 TOTAL 72,129 MEAN 198 MAX 413 MIN 134 CFSM 4.76 IN 64.50 AC-FT 143,100

14316000 Fish Creek at Big Camas ranger station, near Toketee Falls, Oreg.

LOCATION.--Lat 43°13'50", long 122°26'45", in SE¼ sec.10, T.27 S., R.3 E., Douglas County, on right bank 0.2 mile upstream from Camas Creek, 0.7 mile east of Big Camas ranger station, 3.2 miles south of town of Toketee Falls, and at mile 4.7.

DRAINAGE AREA.--68.8 sq mi.

PERIOD OF RECORD.--October 1947 to current year. Prior to October 1952, published as "at Big Camas ranger station."

GAGE.--Water-stage recorder. Datum of gage is 2,858.52 ft above mean sea level (levels by Pacific Power & Light Co.). Prior to July 10, 1951, water-stage recorder and July 10 to Aug. 10, 1951, nonrecording gage, at site 1,000 ft upstream at datum 13.72 ft higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft higher.

AVERAGE DISCHARGE.--24 years, 240 cfs (47.37 inches per year, 173,900 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 6,280 cfs Jan. 18 (gage height, 10.32 ft, from floodmark); minimum, 4.2 cfs Oct. 16, 17.

Period of record: Maximum discharge, 12,100 cfs Dec. 22, 1964 (gage height, 13.9 ft, from floodmark); minimum, 2.3 cfs Sept. 25, 1957.

(Combined flow).--Current year: Maximum discharge, 6,300 cfs Jan. 18; minimum daily, 39 cfs Oct. 14, 17.
Period of record: Maximum discharge, 12,100 cfs Dec. 22, 1964; minimum daily, 35 cfs Nov. 27, 1952.

REMARKS.--Records good. All records given herein include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 miles above station for power generation at Fish Creek powerplant; diversion discharge to North Umpqua River 600 ft downstream from Toketee powerplant.

REVISIONS.--WSP 1448: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	71	283	309	225	281	389	404	473	397	137	119
2	40	72	262	212	220	282	370	464	443	382	135	140
3	40	72	238	171	209	191	363	582	427	361	131	114
4	41	87	218	140	213	180	366	685	430	343	129	96
5	43	146	246	123	221	168	405	642	444	307	127	91
6	43	126	285	116	228	163	468	568	489	292	125	91
7	42	121	376	117	235	163	468	573	533	284	123	88
8	43	324	360	171	250	155	442	626	525	280	119	34
9	42	360	311	505	267	150	469	626	508	270	116	78
10	42	206	287	611	311	168	446	617	552	260	114	77
11	41	401	293	432	336	204	411	716	527	248	112	75
12	41	390	268	260	369	260	384	930	517	243	110	73
13	40	258	257	249	410	229	374	1,080	526	235	113	72
14	39	203	248	215	434	212	387	812	490	231	106	70
15	40	177	248	203	523	195	400	742	474	230	103	68
16	41	204	252	395	442	184	397	676	467	229	101	67
17	39	177	226	1,630	396	172	377	558	456	224	98	66
18	46	157	221	4,260	362	165	348	488	562	219	98	64
19	46	147	194	2,640	323	162	332	454	552	214	96	66
20	74	134	195	1,210	296	164	332	433	552	206	94	65
21	71	127	181	640	275	168	307	403	552	197	93	65
22	67	148	167	381	260	268	293	420	566	191	101	64
23	221	561	156	304	242	550	282	479	540	184	94	64
24	129	2,140	148	280	265	675	266	563	482	178	92	64
25	88	1,260	144	257	250	655	259	641	872	171	89	72
26	72	665	140	254	234	1,010	273	791	699	159	88	102
27	64	525	136	253	229	695	299	731	552	157	93	82
28	64	411	152	244	216	543	326	772	474	151	92	108
29	65	337	170	234	------	476	336	743	427	147	88	129
30	67	319	207	231	------	464	353	636	407	143	90	104
31	70	------	479	232	------	420	------	526	------	139	110	------
TOTAL	1,841	10,326	7,348	17,279	8,240	9,772	10,922	19,381	15,518	7,272	3,317	2,518
MEAN	59.4	344	237	557	294	315	364	625	517	235	107	83.9
MAX	221	2,140	479	4,260	523	1,010	469	1,080	872	397	137	140
MIN	39	71	136	116	209	150	259	403	407	139	88	64
CFSM	.86	5.00	3.44	8.10	4.27	4.58	5.29	9.08	7.51	3.42	1.56	1.22
IN.	1.00	5.58	3.97	9.34	4.46	5.28	5.91	10.48	8.39	3.93	1.79	1.36
AC-FT	3,650	20,480	14,570	34,270	16,340	19,380	21,660	38,440	30,780	14,420	6,580	4,990

CAL YR 1970 TOTAL 89,850.0 MEAN 246 MAX 2,140 MIN 40 CFSM 3.58 IN 48.58 AC-FT 178,200
WTR YR 1971 TOTAL 113,734.0 MEAN 312 MAX 4,260 MIN 39 CFSM 4.53 IN 61.50 AC-FT 225,600

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1330	-	3,450	3-26	0430	-	1,180
1-18	unknown	-	6,300	5-12	2330	-	1,340

14316500 North Umpqua River above Copeland Creek, near Toketee Falls, Oreg.

LOCATION.--Lat 43°17'45", long 122°32'10", in NW¼ sec.24, T.26 S., R.2 E., Douglas County, on right bank 0.6 mile upstream from Copeland Creek, 4.7 miles west of town of Toketee Falls, and at mile 67.2.

DRAINAGE AREA.--475 sq mi.

PERIOD OF RECORD.--September 1949 to current year. Monthly discharge only September 1949, published in WSP 1318. Prior to October 1952, published as "above Copeland Creek."

GAGE.--Water-stage recorder. Altitude of gage is 1,580 ft (from river-profile map).

AVERAGE DISCHARGE.--22 years, 1,525 cfs (1,105,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,800 cfs Jan. 18 (gage height, 15.31 ft); minimum, 585 cfs Sept. 8; minimum daily, 648 cfs Oct. 7.

Period of record: Maximum discharge, 40,700 cfs Dec. 22, 1964 (gage height, 19.1 ft, from floodmark), from rating curve extended above 7,200 cfs on basis of slope-area measurement of peak flow; minimum daily, 565 cfs Sept. 13, 1959.

REMARKS.--Records excellent. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and by Lemolo Lake (see station 14313000). No diversion above station.

REVISIONS (WATER YEARS).--WSP 1448: 1953(M), 1954, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	847	788	1,680	1,370	2,270	1,630	2,130	2,210	2,820	1,940	1,020	1,120
2	847	731	1,720	1,290	2,160	1,640	2,160	2,310	2,630	1,840	1,240	1,170
3	666	693	1,710	1,170	2,060	1,690	2,330	2,360	2,470	1,890	1,140	1,190
4	663	686	1,640	1,240	1,990	1,660	2,200	2,690	2,520	1,870	1,110	1,130
5	657	809	1,700	1,210	1,890	1,450	2,350	2,570	2,360	1,710	1,100	1,070
6	663	831	1,900	1,200	1,860	1,400	2,630	2,460	2,470	1,760	1,050	996
7	648	1,060	2,440	1,080	1,850	1,510	2,580	2,580	2,540	1,730	1,080	1,070
8	650	1,420	2,430	1,180	1,750	1,510	2,470	2,750	2,540	1,520	984	740
9	785	1,980	1,900	1,670	1,720	1,460	2,470	2,690	2,530	1,520	1,110	1,020
10	857	1,490	1,990	2,180	1,960	1,540	2,440	2,620	2,630	1,450	1,100	976
11	793	1,250	1,940	1,970	2,410	1,780	2,370	3,020	2,690	1,410	1,050	1,050
12	863	1,890	1,810	1,680	2,470	2,170	2,210	3,560	2,640	1,290	1,050	1,050
13	828	1,670	1,780	1,510	2,510	2,020	2,140	4,330	2,640	1,380	1,040	1,030
14	790	1,280	1,670	1,690	2,470	1,820	2,220	3,770	2,540	1,290	1,010	1,100
15	781	1,310	1,620	1,600	2,720	1,600	2,290	3,460	2,360	1,390	983	987
16	773	1,380	1,730	2,790	2,540	1,580	2,210	3,330	2,350	1,370	1,040	1,010
17	727	1,280	1,610	14,100	2,370	1,550	2,120	2,960	2,410	1,370	1,030	1,050
18	747	1,240	1,400	16,200	2,260	1,540	2,050	2,700	2,530	1,390	1,040	1,060
19	852	1,200	1,510	8,830	2,080	1,520	1,980	2,440	2,570	1,460	1,030	1,060
20	880	1,190	1,500	6,590	1,870	1,530	1,970	2,420	2,460	1,370	965	1,010
21	916	1,140	1,390	4,410	1,820	1,570	1,830	2,330	1,930	1,320	959	1,000
22	1,090	1,200	1,350	3,750	1,820	2,280	1,800	2,380	2,470	1,280	1,040	998
23	1,350	2,080	1,290	3,150	1,790	3,470	1,750	2,450	2,490	1,240	1,080	995
24	1,330	6,140	1,310	2,810	1,840	3,540	1,480	2,720	2,330	1,190	982	1,010
25	1,250	4,460	1,290	2,550	2,040	3,190	1,250	2,980	2,990	1,130	1,020	1,000
26	1,130	3,110	1,260	2,340	1,870	3,730	1,790	3,420	2,800	1,190	1,030	1,050
27	1,070	2,740	1,230	2,140	1,840	3,080	1,890	3,380	2,460	1,210	993	1,100
28	1,010	2,490	1,200	2,070	1,590	2,670	1,850	3,490	2,220	1,250	940	1,070
29	1,050	2,160	1,210	2,010	------	2,290	1,980	3,450	2,130	1,210	925	1,250
30	1,060	1,920	1,350	2,030	------	2,620	2,070	3,170	2,050	1,210	988	1,140
31	1,030	------	1,770	2,110	------	2,480	------	2,940	------	1,150	1,020	------
TOTAL	27,603	51,618	50,330	99,920	57,820	63,520	63,010	89,940	74,570	44,330	32,149	31,502
MEAN	890	1,721	1,624	3,223	2,065	2,049	2,100	2,901	2,486	1,430	1,037	1,050
MAX	1,350	6,140	2,440	16,200	2,720	3,730	2,630	4,330	2,990	1,940	1,240	1,250
MIN	648	686	1,200	1,080	1,590	1,400	1,250	2,210	1,930	1,130	925	740
AC-FT	54,750	102,400	99,830	198,200	114,700	126,000	125,000	178,400	147,900	87,930	63,770	62,480

CAL YR 1970 TOTAL 533,699 MEAN 1,462 MAX 7,880 MIN 648 AC-FT 1,059,000
WTR YR 1971 TOTAL 686,312 MEAN 1,880 MAX 16,200 MIN 648 AC-FT 1,361,000

14316700 Steamboat Creek near Glide, Oreg.

LOCATION.--Lat 43°21'00", long 122°43'40", in N½ sec.32, T.25½ S., R.1 E., Douglas County, on right bank in Canton Creek Forest Service Park, 200 ft downstream from Canton Creek, 19 miles northeast of Glide, and at mile 0.5.

DRAINAGE AREA.--227 sq mi.

PERIOD OF RECORD.--Annual maximum, water year 1956, June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,128.55 ft above mean sea level (levels by Bureau of Public Roads). Oct. 7, 1955, to June 13, 1956, nonrecording gage at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--15 years, 723 cfs (43.25 inches per year, 523,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 23,700 cfs Jan. 17 (gage height, 16.66 ft); minimum, 32 cfs Oct. 5, 15-17.
Period of record: Maximum discharge, 51,000 cfs Dec. 22, 1964 (gage height, 25.6 ft, from floodmark), from rating curve extended above 13,000 cfs on basis of slope-area measurement at 17.96 ft; minimum, 31 cfs Sept. 24, 1957, Oct. 4, 5, 1960.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	172	1,100	1,710	1,380	610	1,510	1,080	632	255	85	118
2	36	155	897	1,110	1,190	540	1,380	1,200	582	240	82	258
3	35	138	1,060	806	914	670	1,370	1,350	510	224	81	216
4	35	131	1,280	636	803	748	1,440	1,310	475	211	79	124
5	35	214	1,210	537	748	632	1,820	1,060	456	198	79	97
6	37	272	2,270	470	914	560	1,910	829	480	188	78	90
7	37	266	4,570	422	894	599	1,540	894	490	179	78	87
8	37	1,070	2,680	613	829	736	1,230	1,100	433	170	76	79
9	36	1,510	1,610	2,970	829	766	1,580	920	415	170	75	69
10	35	707	1,220	5,020	1,700	1,140	1,580	829	424	165	73	66
11	34	1,650	1,450	2,660	1,760	2,660	1,370	948	399	155	73	63
12	33	2,550	1,200	1,590	1,620	3,610	1,360	1,140	387	148	72	62
13	33	1,500	957	1,170	1,500	2,030	1,330	1,230	383	142	70	59
14	33	800	910	950	1,320	1,520	1,370	862	360	138	70	57
15	32	520	1,480	1,840	2,030	1,300	1,270	754	337	138	70	58
16	32	540	2,520	7,840	1,720	1,060	1,100	803	323	136	69	54
17	32	480	1,520	21,700	1,240	868	1,030	694	306	130	69	52
18	39	432	1,070	15,800	1,030	766	1,150	626	352	124	69	49
19	45	495	819	9,460	955	797	1,130	610	375	122	67	48
20	72	455	701	5,850	810	983	1,130	566	345	116	67	48
21	140	382	597	2,630	748	1,310	983	495	330	111	66	48
22	300	399	500	1,700	730	3,050	875	475	330	105	73	47
23	800	3,450	441	1,340	784	6,290	894	571	313	102	73	47
24	900	9,080	390	1,200	1,460	5,600	875	659	270	100	67	46
25	850	3,680	364	1,120	1,700	3,720	849	682	724	98	66	60
26	600	1,930	348	1,070	1,130	4,040	1,000	901	621	97	65	170
27	370	3,150	335	1,010	914	2,720	1,140	772	424	93	63	140
28	280	1,860	399	1,030	754	2,010	1,060	736	345	90	63	196
29	266	1,380	910	1,040	-------	2,040	941	659	296	88	63	604
30	246	1,210	1,130	1,110	-------	2,340	901	588	270	85	63	348
31	205	-------	3,980	1,410	-------	1,920	-------	515	-------	85	82	-------
TOTAL	5,701	40,578	39,918	97,814	32,406	57,635	37,118	25,858	12,387	4,403	2,226	3,460
MEAN	184	1,353	1,288	3,155	1,157	1,859	1,237	834	413	142	71.8	115
MAX	900	9,080	4,570	21,700	2,030	6,290	1,910	1,350	724	255	85	604
MIN	32	131	335	422	730	540	849	475	270	85	63	46
CFSM	.81	5.96	5.67	13.9	5.10	8.19	5.45	3.67	1.82	.63	.32	.51
IN.	.93	6.65	6.54	16.03	5.31	9.45	6.08	4.24	2.03	.72	.36	.57
AC-FT	11,310	80,490	79,180	194,000	64,280	114,300	73,620	51,290	24,570	8,730	4,420	6,860

CAL YR 1970 TOTAL 291,301 MEAN 798 MAX 9,510 MIN 32 CFSM 3.52 IN 47.74 AC-FT 577,800
WTR YR 1971 TOTAL 359,504 MEAN 985 MAX 21,700 MIN 32 CFSM 4.34 IN 58.91 AC-FT 713,100

PEAK DISCHARGE (BASE, 4,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1000	11.41	12,500	1-17	2030	16.66	23,700
12- 7	1130	8.36	6,740	3-12	0200	7.31	4,810
12-31	0400	7.77	5,770	3-23	0100	9.06	7,840
1-10	0800	8.06	6,260				

14317600 Rock Creek near Glide, Oreg.

LOCATION.--Lat 43°20'45", long 122°59'30", in SE¼SE¼ sec.36, T.25 S., R.3 W., Douglas County, on left bank 0.3 mile downstream from McComas Creek, 5.8 miles northeast of Glide, and at mile 1.2.

DRAINAGE AREA.--97.4 sq mi.

PERIOD OF RECORD.--Water years 1956-57(annual maximums only), June 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 940 ft (from topographic map). Nov. 8, 1955, to June 16, 1957, nonrecording gage and June 17, 1957, to Sept. 30, 1965, water-stage recorder at site 800 ft downstream at different datum.

AVERAGE DISCHARGE.--14 years, 359 cfs (50.05 inches per year, 260,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,000 cfs Jan. 17 (gage height, 11.05 ft, from floodmark); minimum, 19 cfs Oct. 3-5, 15-17.

Period of record: Maximum discharge, 22,800 cfs Dec. 22, 1964 (gage height, 20.3 ft, from floodmark, site and datum then in use), from rating curve extended above 5,400 cfs on basis of slope-area measurement at gage height 14.83 ft; minimum, 14 cfs Sept. 5-11, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	77	607	1,200	576	365	925	515	251	103	42	67
2	20	68	546	800	524	344	799	533	239	96	40	146
3	20	61	694	600	439	463	715	556	216	90	39	95
4	19	60	716	450	468	506	677	542	197	86	38	60
5	20	81	727	350	571	424	721	480	182	83	38	48
6	22	82	1,090	320	640	390	765	428	170	80	38	44
7	23	80	1,730	280	580	463	661	416	160	76	37	41
8	23	309	1,180	400	520	576	576	424	151	73	36	37
9	22	506	783	1,200	493	561	817	386	142	75	34	35
10	22	262	617	2,500	661	847	853	362	153	73	33	34
11	21	560	663	1,500	640	1,620	737	348	138	71	33	32
12	21	973	551	1,000	595	2,000	794	353	128	67	32	32
13	21	467	476	750	542	1,330	743	420	130	66	32	32
14	20	296	542	620	524	1,080	693	360	124	62	32	31
15	20	212	705	1,000	732	932	625	320	115	61	32	29
16	19	233	1,800	4,000	699	754	576	340	108	60	31	29
17	19	204	1,000	9,000	542	625	625	280	103	57	31	27
18	24	182	650	6,500	497	556	817	260	149	55	31	26
19	29	171	500	4,150	497	538	748	240	134	55	30	26
20	53	155	450	2,770	439	580	737	227	117	52	29	26
21	88	153	380	1,600	405	688	656	208	108	50	30	26
22	133	166	330	1,160	447	1,060	600	197	101	48	39	25
23	383	1,010	293	997	497	2,570	600	195	93	47	38	25
24	426	3,010	262	932	799	2,190	615	195	90	47	32	25
25	426	1,660	242	835	883	1,620	605	192	275	46	31	35
26	347	1,080	229	737	630	1,640	656	239	228	45	29	103
27	197	2,440	210	635	529	1,540	661	211	165	44	30	66
28	137	1,230	250	600	443	1,240	590	200	140	43	32	115
29	119	772	600	561	------	1,160	533	185	122	44	30	334
30	102	668	800	552	------	1,030	502	185	111	43	31	197
31	88	------	2,000	595	------	1,110	------	185	------	42	44	------
TOTAL	2,904	17,228	21,623	48,594	15,812	30,802	20,622	9,982	4,540	1,940	1,054	1,848
MEAN	93.7	574	698	1,568	565	994	687	322	151	62.6	34.0	61.6
MAX	426	3,010	2,000	9,000	883	2,570	925	556	275	103	44	334
MIN	19	60	210	280	405	344	502	185	90	42	29	25
CFSM	.96	5.89	7.17	16.1	5.80	10.2	7.05	3.31	1.55	.64	.35	.63
IN.	1.11	6.58	8.26	18.56	6.04	11.76	7.88	3.81	1.73	.74	.40	.71
AC-FT	5,760	34,170	42,890	96,390	31,360	61,100	40,900	19,800	9,010	3,850	2,090	3,670

CAL YR 1970 TOTAL 138,067 MEAN 378 MAX 3,830 MIN 19 CFSM 3.88 IN 52.73 AC-FT 273,900
WTR YR 1971 TOTAL 176,949 MEAN 485 MAX 9,000 MIN 19 CFSM 4.98 IN 67.58 AC-FT 351,000

NOTE.--No gage-height record Dec. 26 to Jan. 18.

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0630	7.62	4,130	1-17	unknown	11.05	10,000
11-27	0530	7.00	3,200	3-23	0700	6.82	3,030
1-10	(time & discharge unknown)						

14318000 Little River at Peel, Oreg.

LOCATION.--Lat 43°15'10", long 123°01'30", in NW¼ sec.2, T.27 S., R.3 W., Douglas County, on left bank 0.6 mile southeast of Peel, 0.9 mile downstream from Cavitt Creek, and at mile 6.3.

DRAINAGE AREA.--177 sq mi.

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 472 cfs (36.21 inches per year, 342,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,300 cfs Jan. 17 (gage height, 16.72 ft, high-water mark in well); minimum, 18 cfs Oct. 1-5, 16, 17.

Period of record: Maximum discharge, 21,100 cfs Dec. 11, 1956 (gage height, 19.63 ft), from rating curve extended above 5,900 cfs on basis of slope-area measurement at gage height 16.55 ft; minimum, 14 cfs Sept. 2, 9, 10, 28, 29, 1967.

Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft, from floodmark (discharge, 22,700 cfs), from rating curve extended above 5,900 cfs on basis of slope-area measurement at gage height 16.55 ft.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No regulation. Small diversions for rural domestic use and irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	83	806	1,290	601	480	1,040	632	576	149	44	47
2	18	76	787	822	552	440	919	668	528	139	42	78
3	18	68	966	598	460	684	840	721	454	129	41	75
4	18	66	947	473	500	764	818	705	402	121	40	48
5	18	140	918	380	600	632	919	637	369	114	40	41
6	19	181	1,270	340	700	571	959	547	349	108	40	42
7	22	145	2,270	300	600	721	857	566	330	101	39	42
8	22	503	1,640	460	550	868	700	647	304	96	38	36
9	21	996	1,070	2,000	500	791	862	562	282	96	36	33
10	20	445	798	3,500	700	1,150	901	532	278	96	34	31
11	20	926	816	2,500	700	2,250	791	581	254	89	34	30
12	19	1,370	680	1,500	650	2,680	802	663	239	86	33	30
13	19	701	588	900	600	1,640	753	731	236	83	32	29
14	19	436	625	800	600	1,220	737	547	214	78	32	28
15	18	307	1,190	2,000	900	995	710	490	198	75	31	27
16	18	320	2,170	7,000	800	818	637	518	187	72	30	27
17	18	286	1,230	15,000	650	673	653	450	177	69	30	25
18	22	247	824	9,850	600	581	824	406	209	66	29	23
19	24	229	613	4,850	600	571	758	382	195	66	29	23
20	41	208	511	3,510	500	668	851	361	177	60	28	23
21	76	218	430	2,030	480	846	769	330	165	58	28	22
22	134	250	358	1,370	550	1,790	705	318	158	55	36	22
23	343	945	308	1,070	600	3,540	731	361	152	53	40	22
24	372	3,800	270	901	900	2,790	716	386	143	53	33	22
25	346	2,260	245	769	1,000	2,150	737	398	369	52	30	27
26	339	1,350	229	668	800	2,760	758	571	345	49	28	69
27	199	2,560	217	606	650	1,830	796	509	254	48	29	70
28	141	1,510	251	581	600	1,310	716	472	212	47	31	87
29	118	974	631	562	------	1,160	642	424	182	46	29	361
30	102	887	826	557	------	1,290	591	390	163	45	29	229
31	91	------	2,520	606	------	1,220	------	373	------	45	38	------
TOTAL	2,673	22,487	27,004	67,793	17,943	39,883	23,492	15,878	8,101	2,444	1,053	1,669
MEAN	86.2	750	871	2,187	641	1,287	783	512	270	78.8	34.0	55.6
MAX	372	3,800	2,520	15,000	1,000	3,540	1,040	731	576	149	44	361
MIN	18	66	217	300	460	440	591	318	143	45	28	22
CFSM	.49	4.24	4.92	12.4	3.62	7.27	4.42	2.89	1.53	.45	.19	.31
IN.	.56	4.73	5.68	14.25	3.77	8.38	4.94	3.34	1.70	.51	.22	.35
AC-FT	5,300	44,600	53,560	134,500	35,590	79,110	46,600	31,490	16,070	4,850	2,090	3,310

CAL YR 1970 TOTAL 180,804 MEAN 495 MAX 4,690 MIN 18 CFSM 2.80 IN 38.00 AC-FT 358,600
WTR YR 1971 TOTAL 230,420 MEAN 631 MAX 15,000 MIN 18 CFSM 3.57 IN 48.43 AC-FT 457,000

PEAK DISCHARGE (BASE, 6,000 CFS).--Jan. 17 (1500) 14,300 cfs (16.72 ft).

NOTE.--No gage-height record Jan. 5-17, Feb. 3 to Mar. 2.

14319500 North Umpqua River at Winchester, Oreg.

LOCATION.--Lat 43°16'20", long 123°24'40", in NW¼NE¼ sec.33, T.26 S., R.6 W., Douglas County, on left bank 400 ft downstream from county bridge, 3 miles west of Winchester, and at mile 1.8.

DRAINAGE AREA.--1,344 sq mi.

PERIOD OF RECORD.--October 1908 to December 1913, October 1923 to September 1929, August 1954 to current year. Prior to December 1908, monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 372.97 ft above mean sea level (Douglas County Road Department bench mark). Oct. 1, 1908 to Dec. 31, 1913, and Oct. 1, 1923, to Sept. 30, 1929, nonrecording gage at site 4.8 miles upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

AVERAGE DISCHARGE.--28 years, 3,677 cfs (2,664,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 84,300 cfs Jan. 18 (gage height, 26.39 ft); minimum, 626 cfs Oct. 18.
Period of record: Maximum discharge, 119,000 cfs Dec. 22, 1964 (gage height, 34.2 ft, from floodmark); minimum, 383 cfs Sept. 25, 1960; minimum daily, 578 cfs Sept. 14, 1959.
Flood of Nov. 23, 1953, reached a stage of 28.4 ft, from floodmarks, present site and datum (discharge, 93,300 cfs).

REMARKS.--Records good. Diurnal fluctuation caused by upstream powerplants; slight regulation by Lemolo Lake (see station 14313000) and Diamond Lake. Several small diversions for irrigation above station. Records of water temperatures and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1448: 1909-12, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	763	1,420	6,370	9,060	5,530	4,510	7,570	4,910	4,600	2,680	1,340	1,250
2	904	1,110	5,950	5,710	5,290	4,200	6,630	5,220	4,400	2,500	1,210	1,500
3	899	1,030	5,820	4,370	4,660	5,380	6,190	5,720	4,080	2,340	1,430	1,760
4	717	967	7,110	3,680	5,040	6,650	6,120	5,860	3,910	2,440	1,290	1,510
5	692	1,000	5,250	3,200	5,570	5,460	6,580	5,500	3,730	2,290	1,280	1,340
6	676	1,480	7,640	2,930	5,710	4,660	7,390	5,000	3,660	2,170	1,280	1,250
7	696	1,480	12,600	2,690	5,360	4,600	6,990	4,800	3,720	2,160	1,210	1,200
8	680	1,730	11,900	2,540	4,850	5,250	5,950	5,000	3,730	2,090	1,250	1,200
9	678	6,960	7,520	6,480	4,430	5,170	7,000	4,800	3,620	1,920	1,130	904
10	808	4,150	5,690	15,500	5,150	5,290	8,000	4,600	3,590	1,910	1,240	1,150
11	900	3,640	5,800	12,000	6,890	11,200	7,500	5,000	3,730	1,830	1,230	1,110
12	838	9,100	5,330	7,820	6,340	17,400	7,000	5,500	3,600	1,750	1,160	1,170
13	902	5,620	4,720	5,860	6,390	12,100	6,500	6,000	3,570	1,670	1,170	1,170
14	872	3,590	4,580	5,130	5,780	8,950	6,000	5,500	3,510	1,700	1,160	1,160
15	828	2,760	5,990	9,650	7,600	7,490	5,500	5,000	3,280	1,640	1,130	1,190
16	814	2,470	12,600	18,500	7,630	5,990	5,420	4,600	3,110	1,680	1,100	1,090
17	810	2,790	8,550	68,500	6,170	5,170	5,210	4,400	3,100	1,680	1,150	1,120
18	763	2,380	5,740	72,300	5,420	4,540	5,950	4,000	3,200	1,640	1,150	1,140
19	817	2,270	4,470	37,300	5,800	4,370	5,670	3,800	3,530	1,650	1,140	1,150
20	956	2,240	3,930	28,400	4,920	4,560	5,690	3,600	3,370	1,710	1,140	1,140
21	1,150	2,140	3,680	16,900	4,540	5,270	5,570	3,400	2,870	1,630	1,070	1,090
22	1,540	2,020	3,100	11,300	4,490	7,360	4,980	3,200	2,930	1,510	1,100	1,090
23	2,170	4,970	2,860	8,920	4,940	22,300	4,940	3,200	3,170	1,510	1,210	1,080
24	4,110	25,000	2,600	7,570	5,340	21,100	4,980	3,600	3,050	1,460	1,200	1,090
25	2,990	18,900	2,480	6,650	8,820	15,800	4,580	4,400	3,690	1,420	1,100	1,110
26	3,180	10,500	2,410	5,990	6,750	17,800	4,540	5,500	4,870	1,340	1,130	1,280
27	2,200	14,600	2,330	5,440	6,120	14,200	5,360	5,000	3,840	1,410	1,140	1,440
28	1,840	11,100	2,370	5,080	5,290	10,300	5,020	4,800	3,330	1,420	1,110	1,380
29	1,670	7,170	4,640	4,920	-------	8,840	4,800	4,600	2,980	1,450	1,060	2,440
30	1,600	6,150	5,150	4,770	-------	9,250	4,600	4,400	2,820	1,410	1,040	2,480
31	1,550	-------	15,000	5,230	-------	9,300	-------	4,200	-------	1,410	1,140	-------
TOTAL	40,013	160,737	184,180	404,390	160,820	274,460	178,230	145,110	106,590	55,420	36,490	38,984
MEAN	1,291	5,358	5,941	13,040	5,744	8,854	5,941	4,681	3,553	1,788	1,177	1,299
MAX	4,110	25,000	15,000	72,300	8,820	22,300	8,000	6,000	4,870	2,680	1,430	2,480
MIN	676	967	2,330	2,540	4,430	4,200	4,540	3,200	2,820	1,340	1,040	904
AC-FT	79,370	318,800	365,300	802,100	319,000	544,400	353,500	287,800	211,400	109,900	72,380	77,320

CAL YR 1970 TOTAL 1,427,011 MEAN 3,910 MAX 37,300 MIN 676 AC-FT 2,830,000
WTR YR 1971 TOTAL 1,785,424 MEAN 4,892 MAX 72,300 MIN 676 AC-FT 3,541,000

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1630	13.92	33,700	3-12	0700	10.11	20,400
1-18	0330	26.39	84,300	3-23	0600	11.39	24,900

14320700 Calapooya Creek near Oakland, Oreg.

LOCATION.--Lat 43°24'10", long 123°21'45", in NW¼ sec.13, T.25 S., R.6 W., Douglas County, near center of span on downstream side of highway bridge, 0.9 mile downstream from Williams Creek, 2.5 miles northwest of Sutherlin, 3.5 miles southwest of Oakland, and at mile 10.1.

DRAINAGE AREA.--210 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 371.26 ft above mean sea level. Prior to June 22, 1968, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 499 cfs (32.27 inches per year, 361,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,500 cfs Jan. 17 (gage height, 18.60 ft); minimum, 7.8 cfs Aug. 20.
Period of record: Maximum discharge, 26,600 cfs Nov. 23, 1961 (gage height, 21.55 ft); no flow Sept. 9-11, 1966.

REMARKS.--Records good. No regulation. Diversion above station for municipal supply of cities of Sutherlin and Oakland. Small diversions by pumping for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	56	2,100	2,070	373	1,010	997	373	290	73	17	38
2	8.5	49	2,310	1,320	341	911	816	345	306	68	16	61
3	8.5	46	2,320	918	308	1,700	683	324	245	62	15	88
4	8.9	42	2,050	699	940	2,080	590	310	203	56	15	52
5	8.9	49	1,370	551	1,250	1,630	537	290	175	52	15	38
6	9.3	62	1,290	449	958	1,350	492	254	151	51	15	33
7	11	53	1,520	390	760	1,430	444	230	136	47	15	31
8	12	59	1,330	389	619	1,470	385	220	127	44	14	27
9	11	164	974	800	524	1,180	608	204	115	42	12	24
10	11	160	742	1,480	493	1,370	889	185	115	45	11	21
11	10	234	800	1,550	440	2,610	712	172	109	45	10	20
12	10	686	673	1,330	400	3,330	674	163	100	41	10	20
13	10	381	612	1,040	360	2,560	602	183	106	37	10	18
14	9.7	248	740	1,000	400	2,080	537	154	103	34	9.7	16
15	9.3	190	1,540	4,130	550	1,720	479	139	89	32	9.3	14
16	9.7	175	3,440	4,270	700	1,340	452	209	82	29	9.3	14
17	9.3	173	2,250	8,490	650	1,030	569	196	76	27	8.9	14
18	10	144	1,370	8,560	700	826	802	168	98	26	8.5	13
19	13	134	938	4,500	750	712	663	153	116	23	8.5	10
20	17	125	776	3,440	700	646	716	140	91	26	8.2	9.3
21	47	122	631	2,170	650	607	800	142	79	24	8.9	8.9
22	106	124	491	1,550	650	827	703	128	72	21	12	9.3
23	158	378	399	1,260	700	2,060	726	119	65	20	22	10
24	315	2,220	335	1,070	800	1,960	803	110	65	19	17	11
25	250	1,690	299	948	950	1,680	836	105	149	20	13	12
26	360	1,160	273	794	1,100	1,960	766	194	184	19	11	31
27	192	2,910	259	690	1,320	1,820	678	195	128	16	12	47
28	128	1,860	321	603	1,180	1,400	575	161	109	15	12	40
29	98	1,060	1,590	525	------	1,120	481	141	94	17	14	165
30	79	1,050	1,770	459	------	1,130	413	141	80	17	14	156
31	65	------	3,830	409	------	1,180	------	145	------	17	19	------
TOTAL	2,003.6	15,804	39,343	57,854	19,566	46,729	19,428	5,993	3,858	1,065	392.3	1,051.5
MEAN	64.6	527	1,269	1,866	699	1,507	648	193	129	34.4	12.7	35.1
MAX	360	2,910	3,830	8,560	1,320	3,330	997	373	306	73	22	165
MIN	8.5	42	259	389	308	607	385	105	65	15	8.2	8.9
CFSM	.31	2.51	6.04	8.89	3.33	7.18	3.09	.92	.61	.16	.06	.17
IN.	.35	2.80	6.97	10.25	3.47	8.28	3.44	1.06	.68	.19	.07	.19
AC-FT	3,970	31,350	78,040	114,800	38,810	92,690	38,540	11,890	7,650	2,110	778	2,090

CAL YR 1970 TOTAL 181,495.1 MEAN 497 MAX 6,960 MIN 2.0 CFSM 2.37 IN 32.15 AC-FT 360,000
WTR YR 1971 TOTAL 213,087.4 MEAN 584 MAX 8,560 MIN 8.2 CFSM 2.78 IN 37.75 AC-FT 422,700

PEAK DISCHARGE (BASE, 6,300 CFS).--Jan. 17 (2100) 12,500 cfs (18.60 ft).

14321000 Umpqua River near Elkton, Oreg.
(International Hydrological Decade River Station)

LOCATION.--Lat 43°35'10", long 123°33'30", in NW¼ sec.8, T.23 S., R.7 W., Douglas County, on right bank 3.5 miles south of Elkton, 8.2 miles upstream from Elk Creek, and at mile 56.8.

DRAINAGE AREA.--3,683 sq mi.

PERIOD OF RECORD.--October 1905 to current year.

GAGE.--Water-stage recorder. Datum of gage is 90.42 ft above mean sea level. Prior to Jan. 1, 1910, nonrecording gage at site 1,700 ft upstream at datum 2.63 ft higher. Jan. 1, 1910, to Sept. 30, 1929, at datum 2.11 ft higher, and Oct. 1, 1929, to Nov. 1, 1956, at datum 1.15 ft higher.

AVERAGE DISCHARGE.--66 years, 7,475 cfs (27.56 inches per year, 5,416,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 201,000 cfs Jan. 18 (gage height, 43.63 ft, from floodmarks); minimum, 810 cfs Oct. 6.
Period of record: Maximum discharge, 265,000 cfs Dec. 23, 1964 (gage height, 51.95 ft, from floodmarks); minimum observed, 640 cfs July 18, 1926.
Maximum stage since at least December 1861, 51.95 ft, Dec. 23, 1964, from floodmarks (discharge, 265,000 cfs).

REMARKS.--Records good. Regulation by powerplants on North Umpqua River ordinarily do not affect discharge at this station. Diversions for irrigation above station. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1184: 1927(M), 1938(M), 1943(M), 1946(M). WSP 1448: 1911-13, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	900	1,980	15,500	34,200	10,400	13,100	17,800	8,600	6,380	3,730	1,550	1,330
2	898	1,840	18,500	19,900	10,300	11,400	15,300	8,990	7,030	3,520	1,490	1,490
3	950	1,570	16,500	15,000	9,390	13,200	13,700	9,400	6,650	3,280	1,370	1,730
4	947	1,470	25,100	11,000	8,860	19,800	12,800	9,850	6,020	3,100	1,540	2,090
5	891	1,430	17,200	8,500	12,800	19,800	12,400	10,100	5,740	3,150	1,440	1,840
6	814	1,460	16,000	7,050	15,600	15,800	13,200	9,180	5,360	2,920	1,400	1,680
7	817	1,870	22,100	6,350	15,200	14,300	13,500	8,190	5,320	2,780	1,390	1,530
8	819	2,280	32,200	5,720	13,100	15,500	12,200	8,190	5,360	2,740	1,360	1,410
9	824	4,700	20,900	6,420	11,400	16,100	11,300	8,880	5,220	2,640	1,370	1,430
10	822	8,950	15,000	18,000	10,400	15,300	16,600	8,260	5,100	2,480	1,260	1,160
11	855	5,580	12,400	24,400	12,300	25,400	15,900	7,750	5,080	2,450	1,350	1,250
12	977	9,340	11,900	19,200	12,300	48,500	14,600	8,440	5,110	2,360	1,330	1,280
13	979	13,000	10,200	15,400	11,900	42,000	13,500	9,500	4,980	2,280	1,280	1,310
14	998	7,640	9,410	12,700	11,400	29,800	12,500	11,000	4,890	2,150	1,260	1,320
15	1,030	5,110	11,500	25,000	11,900	24,400	11,800	10,000	4,690	2,140	1,250	1,270
16	982	4,140	28,600	55,000	14,600	19,500	11,100	9,000	4,380	2,070	1,210	1,330
17	973	3,780	31,800	130,000	12,700	16,500	10,800	8,500	4,220	2,070	1,190	1,200
18	988	3,720	19,300	150,000	10,800	13,700	13,100	7,240	4,240	2,060	1,270	1,210
19	970	3,310	13,400	105,000	11,000	12,000	13,900	6,530	4,440	2,010	1,160	1,240
20	1,010	3,140	10,600	68,300	10,700	11,300	12,600	6,270	4,630	2,000	1,160	1,260
21	1,150	3,030	9,200	42,200	9,500	11,800	13,200	6,000	4,420	2,020	1,140	1,240
22	1,420	2,910	7,820	28,300	8,930	13,300	11,700	6,000	3,740	1,940	1,130	1,200
23	1,950	3,140	6,590	21,900	9,590	31,700	10,900	5,500	4,040	1,770	1,130	1,170
24	3,420	21,900	5,790	18,500	10,200	40,600	11,000	5,500	4,080	1,750	1,230	1,170
25	4,850	44,900	5,230	16,100	15,000	33,000	10,600	6,000	4,030	1,680	1,260	1,190
26	4,350	23,900	4,860	14,200	16,300	36,000	10,000	6,840	5,690	1,630	1,170	1,250
27	3,840	22,400	4,620	11,800	15,300	41,300	10,300	8,280	6,430	1,560	1,200	1,390
28	3,050	28,900	4,590	10,100	14,600	28,200	10,400	7,740	5,190	1,580	1,240	1,670
29	2,450	17,700	9,160	9,810	------	22,000	9,640	7,480	4,490	1,580	1,220	1,820
30	2,190	13,000	18,400	10,000	------	19,400	9,020	7,140	4,020	1,610	1,170	3,250
31	2,060	------	34,400	9,880	------	20,600	------	6,640	------	1,570	1,190	------
TOTAL	49,174	268,090	468,770	929,930	336,470	695,300	375,360	246,990	150,970	70,620	39,710	43,710
MEAN	1,586	8,936	15,120	30,000	12,020	22,430	12,510	7,967	5,032	2,278	1,281	1,457
MAX	4,850	44,900	34,400	150,000	16,300	48,500	17,800	11,000	7,030	3,730	1,550	3,250
MIN	814	1,430	4,590	5,720	8,860	11,300	9,020	5,500	3,740	1,560	1,130	1,160
CFSM	.43	2.43	4.11	8.15	3.26	6.09	3.40	2.16	1.37	.62	.35	.40
IN.	.50	2.71	4.73	9.39	3.40	7.02	3.79	2.49	1.52	.71	.40	.44
AC-FT	97,540	531,800	929,800	1,845M	667,400	1,379M	744,500	489,900	299,400	140,100	78,760	86,700

CAL YR 1970 TOTAL 2,884,367 MEAN 7,902 MAX 96,300 MIN 794 CFSM 2.15 IN 29.13 AC-FT 5,721,000
WTR YR 1971 TOTAL 3,675,094 MEAN 10,070 MAX 150,000 MIN 814 CFSM 2.73 IN 37.12 AC-FT 7,290,000

PEAK DISCHARGE (BASE, 52,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0500	19.19	56,100	3-12	1530	19.74	58,800
1-18	1130	43.63	201,000				

14321400 Elk Creek near Elkhead, Oreg.

LOCATION.--Lat 43°35'45", long 123°11'35", in NW¼SE¼ sec.5, T.23 S., R.4 W., Douglas County, on right bank downstream side of Milltown Hill Bridge, 1.5 miles upstream from Adams Creek, 4.0 miles north of town of Elkhead, and at mile 37.7.

DRAINAGE AREA.--28.7 sq mi.

PERIOD OF RECORD.--January to August 1968 (gage heights and discharge measurements only), September 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 463.99 ft above mean sea level (Douglas County Highway Department bench mark). Prior to Sept. 1, 1968, nonrecording gage at site 20 ft upstream at datum 1.70 ft lower.

EXTREMES.--Current year: Maximum discharge, 1,400 cfs Jan. 17 (gage height, 6.76 ft); minimum, 0.36 cfs Sept. 9.
Period of record: Maximum discharge, 2,020 cfs Dec. 21, 1969 (gage height, 7.74 ft); minimum, 0.36 cfs Sept. 9, 1971.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

REVISIONS (WATER YEARS).--WRD Oreg.: 1969(M,P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.0	359	268	42	130	119	39	42	8.4	2.4	5.6
2	1.5	3.8	340	157	39	120	96	34	37	7.9	2.2	8.4
3	1.7	3.8	356	110	35	200	79	31	30	7.1	2.0	7.2
4	1.7	4.2	275	86	125	280	67	30	26	6.6	2.0	4.5
5	1.7	6.9	163	70	144	220	59	28	22	6.4	2.7	3.4
6	1.8	8.8	134	57	110	190	51	25	19	6.3	2.4	3.4
7	2.1	7.2	152	51	88	180	46	24	17	5.9	2.2	3.0
8	2.1	10	122	50	72	170	43	22	16	5.5	2.0	2.8
9	2.3	26	94	68	61	160	96	20	14	5.6	1.7	2.2
10	2.3	21	77	113	55	200	120	19	15	6.1	1.5	2.4
11	2.1	57	83	139	46	240	96	18	13	5.6	1.4	2.5
12	2.1	82	72	125	41	340	88	17	12	5.3	1.4	2.4
13	2.1	39	65	101	37	280	77	20	13	5.0	1.6	2.3
14	2.3	25	88	111	42	220	67	16	12	4.6	1.6	2.3
15	2.3	18	192	583	76	180	58	17	10	4.3	1.5	2.1
16	2.3	23	586	583	79	140	57	31	9.5	4.2	1.4	1.9
17	2.3	20	308	1,020	68	114	85	23	9.2	4.1	1.3	1.8
18	3.2	17	165	874	73	92	107	20	12	3.8	1.3	1.7
19	3.2	15	111	600	88	79	88	17	11	3.7	1.4	1.7
20	4.9	14	92	407	79	70	93	16	9.2	3.0	1.3	1.7
21	8.4	13	76	232	71	64	98	17	8.2	2.7	1.5	1.7
22	9.6	13	59	156	67	82	90	15	7.5	2.6	2.4	1.7
23	20	73	50	128	72	159	89	14	6.9	2.8	2.4	1.7
24	24	365	41	107	75	156	94	13	7.3	2.8	1.8	1.8
25	28	168	37	99	80	149	97	13	30	2.8	1.6	2.2
26	28	126	34	86	110	192	85	27	23	2.7	1.5	3.5
27	13	383	32	77	160	183	72	25	15	2.6	1.6	4.2
28	8.0	194	55	68	150	139	62	20	12	2.6	1.7	8.1
29	6.0	107	278	59	------	109	52	18	10	2.7	1.8	20
30	5.2	142	280	53	------	116	44	18	9.3	2.6	2.1	12
31	4.4	------	583	46	------	139	------	19	------	2.5	3.1	------
TOTAL	200.3	1,989.7	5,359	6,684	2,185	5,093	2,375	666	478.1	138.8	56.3	120.2
MEAN	6.46	66.3	173	216	78.0	164	79.2	21.5	15.9	4.48	1.82	4.01
MAX	28	383	586	1,020	160	340	120	39	42	8.4	3.1	20
MIN	1.5	3.8	32	46	35	64	43	13	6.9	2.5	1.3	1.7
CFSM	.23	2.31	6.03	7.53	2.72	5.71	2.76	.75	.55	.16	.06	.14
IN.	.26	2.58	6.95	8.66	2.83	6.60	3.08	.86	.62	.18	.07	.16
AC-FT	397	3,950	10,630	13,260	4,330	10,100	4,710	1,320	948	275	112	238

CAL YR 1970 TOTAL 22,111.41 MEAN 60.6 MAX 1,040 MIN .93 CFSM 2.11 IN 28.66 AC-FT 43,860
WTR YR 1971 TOTAL 25,345.40 MEAN 69.4 MAX 1,020 MIN 1.3 CFSM 2.42 IN 32.85 AC-FT 50,270

PEAK DISCHARGE (BASE, 820 CFS).--Jan. 17 (1700) 1,400 cfs (6.76 ft).

14322000 Elk Creek near Drain, Oreg.

LOCATION.--Lat 43°38'30", long 123°17'50", in NE¼SW¼ sec.21, T.22 S., R.5 W., Douglas County, on right bank at downstream side of highway bridge, 0.2 mile downstream from Yoncalla Creek, 1.7 miles southeast of Drain, and at mile 26.2.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 305.96 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 223 cfs 29.12 inches per year, 161,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,490 cfs Jan. 17 (gage height, 14.24 ft); minimum, 0.47 cfs Aug. 18.
Period of record: Maximum discharge, 15,000 cfs Feb. 10, 1961 (gage height, 23.7 ft, from floodmark), from rating curve extended above 7,500 cfs; no flow at times.

REMARKS.--Records good. No regulation. Small diversions by pumping for irrigation above station. Municipal supply for town of Yoncalla is diverted from Wilson Creek above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	6.0	1,130	1,090	151	478	358	113	97	24	3.7	9.8
2	1.1	5.2	1,300	621	141	446	290	103	95	23	3.8	23
3	.88	4.9	1,280	430	128	981	235	96	77	21	3.4	23
4	1.6	5.1	1,060	322	426	1,320	200	91	66	20	3.2	14
5	2.6	10	581	252	523	944	174	90	59	19	3.1	10
6	1.5	16	431	209	402	703	151	78	51	18	3.8	9.6
7	1.9	13	517	185	318	704	139	71	46	18	2.9	8.7
8	2.6	22	421	172	256	684	133	66	42	17	2.5	7.6
9	3.0	89	320	209	214	521	297	63	39	16	1.7	6.5
10	3.3	59	251	346	195	675	426	61	41	16	1.6	5.9
11	3.6	113	250	564	163	1,220	337	58	37	15	1.7	5.6
12	3.5	188	207	564	147	1,650	303	55	34	14	1.5	5.7
13	3.2	95	186	447	133	1,210	255	61	37	14	.97	5.5
14	3.3	58	248	505	160	943	216	55	37	12	1.5	5.2
15	3.6	41	550	2,960	283	732	186	51	31	10	1.9	5.0
16	3.6	47	2,170	2,690	300	559	179	82	28	9.4	1.0	4.8
17	3.3	48	1,210	3,950	261	433	298	67	26	8.2	.99	4.6
18	4.4	38	607	4,120	273	340	366	60	29	7.7	.65	4.2
19	5.4	33	404	2,630	331	277	288	54	34	7.5	1.3	3.6
20	4.9	28	342	1,810	290	232	268	51	25	6.9	1.1	3.2
21	8.4	24	277	955	258	198	266	53	22	6.2	1.3	2.8
22	15	25	215	632	278	249	235	47	21	4.6	2.2	3.0
23	20	189	178	505	277	536	232	44	19	4.0	5.4	3.4
24	45	1,160	151	421	294	545	242	41	18	3.9	4.7	4.0
25	54	585	135	386	397	510	240	39	67	4.3	4.0	4.1
26	64	377	125	321	449	742	215	63	64	4.2	2.0	7.1
27	26	1,180	123	280	611	663	185	65	44	3.7	2.0	8.5
28	14	659	180	244	551	499	165	54	35	3.4	2.5	15
29	9.9	356	916	212	------	384	143	47	30	3.6	3.8	61
30	8.1	431	1,020	186	------	383	126	47	27	3.8	4.4	39
31	6.7	------	2,520	167	------	430	------	49	------	4.1	6.0	------
TOTAL	329.68	5,905.2	19,305	28,385	8,210	20,191	7,148	1,975	1,278	342.5	80.61	313.4
MEAN	10.6	197	623	916	293	651	238	63.7	42.6	11.0	2.60	10.4
MAX	64	1,180	2,520	4,120	611	1,650	426	113	97	24	6.0	61
MIN	.88	4.9	123	167	128	198	126	39	18	3.4	.65	2.8
CFSM	.10	1.89	5.99	8.81	2.82	6.26	2.29	.61	.41	.11	.03	.10
IN.	.12	2.11	6.91	10.15	2.94	7.22	2.56	.71	.46	.12	.03	.11
AC-FT	654	11,710	38,290	56,300	16,280	40,050	14,180	3,920	2,530	679	160	622

CAL YR 1970 TOTAL 78,979.41 MEAN 216 MAX 3,910 MIN .02 CFSM 2.08 IN 28.25 AC-FT 156,700
WTR YR 1971 TOTAL 93,463.39 MEAN 256 MAX 4,120 MIN .65 CFSM 2.46 IN 33.43 AC-FT 185,400

PEAK DISCHARGE (BASE, 3,100 CFS).--Dec. 31 (0630) 3,280 cfs (10.87 ft); Jan. 17 (2330) 5,490 cfs (14.24 ft).

14323100 Smith River near Gardiner, Oreg.

LOCATION.--Lat 43°47'05", long 123°48'50", in SW¼SE¼ sec.31, T.20 S., R.9 W., Douglas County, on right bank 0.1 mile downstream from Buck Creek, 15 miles northeast of Gardiner, and at mile 28.5.

DRAINAGE AREA.--206 sq mi at cableway site 0.2 mile downstream.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 720 cfs (47.46 inches per year, 521,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,900 cfs Jan. 16 (gage height, 10.91 ft); minimum, 8.0 cfs Oct. 14-17.

Period of record: Maximum discharge, 20,100 cfs Jan. 3, 1966 (gage height, 13.00 ft), from rating curve extended above 13,000 cfs; minimum, 4.3 cfs Aug. 26, 1966.

REVISIONS.--Figures of maximum discharge for the water years 1966, 1969, and 1970 have been revised to 20,100 cfs Jan. 3, 1966 (gage height, 13.00 ft), 17,700 cfs Dec. 4, 1968 (gage height, 11.82 ft), 14,500 cfs Jan. 26, 1970 (gage height, 10.22 ft), superseding figures published in WRD Oreg. 1966, 1969, and 1970.

REMARKS.--Records good. No regulation or diversion above station. Records given herein are for measuring site 0.2 mile downstream.

REVISIONS.--The figures of peak discharge for water years 1966 and 1969 have been revised as shown in the following table. They supersede figures published in WRD Oreg. 1966 and 1969.

REVISED PEAK DISCHARGE.--1966: Dec. 28 (0830) 13,900 cfs (9.88 ft); Jan. 3 (2030) 20,100 cfs (13.00 ft); Jan. 6 (0300) 15,000 cfs (10.45 ft).

1969: Nov. 9 (0130) 7,080 cfs (6.61 ft); Dec. 4 (2300) 17,700 cfs (11.82 ft); Dec. 10 (1330) 13,200 cfs (9.54 ft); Dec. 28 (0800) 8,160 cfs (7.06 ft); Jan. 11 (0500) 11,700 cfs (8.79 ft); Feb. 9 (0100) 11,900 cfs (8.52 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	61	2,200	3,400	620	1,150	1,250	362	169	116	34	173
2	9.6	55	2,660	1,930	540	1,100	1,020	345	177	107	33	280
3	9.0	48	3,790	1,290	484	2,880	820	325	173	99	31	232
4	9.0	47	3,580	970	910	3,760	700	310	162	91	31	141
5	8.5	50	2,130	780	1,470	2,500	612	295	151	84	30	99
6	9.0	99	2,210	652	1,130	1,920	548	280	144	81	31	84
7	9.6	113	2,340	564	890	2,030	491	265	137	76	31	72
8	9.6	141	1,960	519	740	2,340	700	250	130	74	28	66
9	9.0	330	1,250	860	644	1,700	4,560	241	124	72	28	57
10	9.0	320	930	1,750	732	2,320	4,440	228	130	72	26	50
11	9.0	392	890	2,600	716	4,820	2,880	201	127	72	26	47
12	9.0	828	788	2,100	628	5,880	2,550	205	121	70	25	43
13	8.5	491	692	1,410	548	4,340	1,730	210	134	66	23	38
14	8.0	300	684	1,210	564	3,250	1,250	201	137	61	23	36
15	8.0	214	1,410	8,720	960	2,690	970	197	124	57	23	33
16	8.0	325	3,970	11,200	1,110	2,030	820	315	116	55	21	32
17	8.0	416	3,360	12,100	910	1,480	1,240	290	107	52	21	31
18	14	335	1,800	9,860	780	1,140	1,670	246	121	50	20	28
19	27	270	1,170	6,800	940	910	1,240	219	134	48	19	27
20	32	223	980	4,860	930	772	990	201	118	47	19	27
21	57	197	1,070	2,730	828	668	812	193	110	45	22	27
22	113	189	970	1,940	788	740	708	181	101	41	30	26
23	205	940	796	1,830	772	1,540	676	173	99	40	31	25
24	374	3,610	668	1,750	1,130	2,200	636	162	96	37	28	25
25	505	2,500	572	2,880	1,710	1,750	588	162	422	37	26	31
26	410	1,360	512	2,640	1,500	2,270	533	197	374	36	23	43
27	228	2,890	512	1,720	1,460	2,490	484	205	255	34	21	43
28	144	2,100	1,250	1,270	1,290	2,450	446	185	193	36	21	61
29	104	1,070	3,670	1,010	-------	1,780	410	169	155	36	22	177
30	81	1,020	5,660	828	-------	1,540	380	162	134	37	23	197
31	70	-------	8,260	708	-------	1,470	-------	162	-------	37	81	-------
TOTAL	2,514.4	20,934	62,734	92,881	25,724	67,910	36,154	7,137	4,675	1,866	851	2,251
MEAN	81.1	698	2,024	2,996	919	2,191	1,205	230	156	60.2	27.5	75.0
MAX	505	3,610	8,260	12,100	1,710	5,880	4,560	362	422	116	81	280
MIN	8.0	47	512	519	484	668	380	162	96	34	19	25
CFSM	.39	3.39	9.83	14.5	4.46	10.6	5.85	1.12	.76	.29	.13	.36
IN.	.45	3.78	11.33	16.77	4.65	12.26	6.53	1.29	.84	.34	.15	.41
AC-FT	4,990	41,520	124,400	184,200	51,020	134,700	71,710	14,160	9,270	3,700	1,690	4,460

CAL YR 1970 TOTAL 264,417.4 MEAN 724 MAX 10,900 MIN 8.0 CFSM 3.51 IN 47.75 AC-FT 524,500
WTR YR 1971 TOTAL 325,631.4 MEAN 892 MAX 12,100 MIN 8.0 CFSM 4.33 IN 58.80 AC-FT 645,900

PEAK DISCHARGE (BASE, 7,000 CFS).--Dec. 31 (0330) 10,600 cfs (8.25 ft); Jan. 16 (2230) 15,900 cfs (10.91 ft).

14323200 Tenmile Creek near Lakeside, Oreg.

LOCATION.--Lat 43°34'40", long 124°11'30", near center of sec.13, T.23 S., R.13 W., Coos County, Siuslaw National Forest, near left bank on downstream side of highway bridge, 200 ft upstream from Eel Creek, 0.8 mile upstream from Saunders Creek, and 1 mile west of Lakeside. Records include flow of Eel and Saunders Creek.

DRAINAGE AREA.--About 87 sq mi at measuring section 1.2 miles downstream.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Auxiliary nonrecording gage 1.4 miles upstream from base gage, read twice daily. Datum of both gages is at mean sea level.

AVERAGE DISCHARGE.--14 years, 325 cfs (235,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,680 cfs Jan. 19 (elevation, 15.17 ft at base gage); minimum, 12.0 cfs Oct. 15-17.
Period of record: Maximum discharge, 3,330 cfs Dec. 26, 1964 (elevation, 16.46 ft at base gage, 18.78 ft at auxiliary gage); minimum, 2.0 cfs Aug. 29, Sept. 2, 1967.
Maximum known stage at auxiliary gage, 19.83 ft in January 1953, from floodmarks.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow affected by natural storage in Tenmile Lake and other lakes tributary to Eel and Saunders Creeks. No diversion above station. Records given herein are for measuring site.

REVISIONS (WATER YEARS).--WSP 1718: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	66	398	1,240	650	550	663	380	133	138	44	42
2	15	64	483	1,100	600	570	625	360	130	133	43	59
3	15	63	570	965	550	589	584	340	127	130	41	71
4	15	62	695	863	550	620	548	320	123	125	40	71
5	14	63	698	773	550	644	512	320	120	119	38	71
6	14	64	677	695	600	642	480	300	117	114	36	71
7	14	64	716	632	550	629	449	280	113	109	35	70
8	13	68	743	585	550	610	445	280	109	105	33	69
9	13	76	701	602	500	584	785	240	107	100	32	66
10	13	82	641	710	480	580	1,300	220	107	97	30	65
11	13	93	596	809	460	655	1,400	220	104	93	29	64
12	13	112	548	836	420	855	1,300	220	101	90	27	62
13	13	110	505	821	400	952	1,100	220	100	86	27	62
14	13	112	473	791	400	999	1,000	220	98	84	26	63
15	12	113	463	1,120	400	1,000	900	200	96	83	25	61
16	12	116	515	1,600	400	952	850	200	93	81	23	59
17	12	119	530	1,840	380	878	800	200	89	79	23	55
18	15	122	515	2,360	360	802	800	194	91	75	22	53
19	16	124	490	2,560	360	730	750	189	89	72	21	50
20	18	125	478	2,570	360	665	700	184	87	68	21	49
21	23	124	473	2,240	360	606	650	179	86	68	22	46
22	30	126	463	1,700	360	579	650	170	84	67	25	44
23	38	138	438	1,600	360	604	600	164	83	65	25	43
24	47	183	413	1,500	380	654	600	158	82	64	25	42
25	56	230	386	1,400	420	685	550	154	116	62	25	42
26	65	255	368	1,300	460	725	500	152	136	60	24	42
27	68	307	358	1,100	500	748	500	151	140	56	25	40
28	69	351	405	1,000	550	742	460	146	142	53	25	44
29	69	355	513	900	------	713	440	143	141	50	24	53
30	68	362	647	800	------	703	400	140	141	48	24	62
31	67	------	1,130	700	------	690	------	135	------	47	30	------
TOTAL	879	4,249	17,029	37,712	12,910	21,955	21,341	6,779	3,285	2,621	890	1,691
MEAN	28.4	142	549	1,217	461	708	711	219	110	84.5	28.7	56.4
MAX	69	362	1,130	2,570	650	1,000	1,400	380	142	138	44	71
MIN	12	62	358	585	360	550	400	135	82	47	21	40
AC-FT	1,740	8,430	33,780	74,800	25,610	43,550	42,330	13,450	6,520	5,200	1,770	3,350

CAL YR 1970 TOTAL 213,376.5 MEAN 585 MAX 3,230 MIN 7.5 AC-FT 423,200
WTR YR 1971 TOTAL 131,341.0 MEAN 360 MAX 2,570 MIN 12 AC-FT 260,500

NOTE.--No gage-height record Jan. 22 to Mar. 1, Apr. 10 to May 17.

14324500 West Fork Millicoma River near Allegany, Oreg.

LOCATION.--Lat 43°28'35", long 124°03'20", in SW¼NW¼ sec.19, T.24 S., R.11 W., in Coos County, on left bank at highway bridge, 40 ft upstream from Daggett Creek, 3.8 miles north of Allegany, and at mile 6.82.

DRAINAGE AREA.--46.5 sq mi.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 76.95 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 260 cfs (75.93 inches per year, 188,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,270 cfs Jan. 17 (gage height, 11.03 ft); minimum, 3.8 cfs Oct. 4, 5.
Period of record: Maximum discharge, 8,100 cfs Nov. 24, 1960 (gage height, 15.86 ft); minimum, 1.8 cfs Sept. 5, 9, 1965, Sept. 8-10, 1967.
Flood in January or November 1953 reached a stage of about 17.9 ft, from information by local resident.

REMARKS.--Records good. No regulation. Only minor diversions for irrigation above station. Records of chemical analysis for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1718: 1955-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	27	678	863	165	292	412	119	55	73	14	352
2	4.3	24	769	503	145	289	313	109	55	62	13	715
3	4.0	21	1,340	349	131	662	250	103	50	56	12	310
4	4.0	22	967	265	337	764	205	95	46	50	11	155
5	4.3	30	666	213	507	566	175	91	44	45	11	109
6	4.5	83	602	178	384	454	155	83	43	42	11	91
7	4.8	65	913	153	292	507	139	75	42	38	11	67
8	4.8	163	614	148	232	630	416	69	39	37	10	55
9	4.8	346	395	405	198	444	2,370	65	38	35	9.8	46
10	4.6	205	307	976	195	782	1,480	61	42	35	9.4	40
11	4.5	265	319	863	175	1,540	917	56	42	34	9.0	38
12	4.6	409	256	570	158	1,570	690	56	36	31	8.6	35
13	4.6	229	215	409	143	1,100	461	64	39	29	8.6	31
14	4.4	148	235	419	170	931	337	55	45	27	9.0	28
15	4.6	115	419	2,730	328	764	268	61	39	25	9.0	25
16	4.8	319	890	2,810	265	542	232	141	35	25	8.6	24
17	5.0	280	610	3,360	215	398	562	121	32	23	8.2	22
18	12	211	395	3,110	203	307	606	97	46	22	8.2	20
19	21	190	286	2,390	241	247	405	87	62	21	8.2	20
20	31	163	313	1,310	215	205	349	77	49	20	8.2	19
21	56	148	391	702	193	178	316	73	43	18	10	18
22	118	140	307	500	244	301	277	64	38	17	22	17
23	283	825	241	698	313	686	298	59	39	17	24	17
24	235	2,400	198	746	626	850	310	55	40	16	15	17
25	226	944	168	872	674	590	274	52	606	15	12	20
26	235	710	148	733	465	728	226	62	319	15	11	31
27	113	1,360	155	489	405	674	193	64	185	14	9.8	28
28	69	764	602	358	346	534	165	56	133	15	9.8	77
29	48	430	1,000	283	------	426	145	53	107	15	9.8	280
30	38	489	1,540	229	------	475	131	55	87	15	10	223
31	32	------	2,460	193	------	534	------	52	------	14	139	------
TOTAL	1,594.1	11,525	18,479	27,827	7,965	18,970	13,077	2,330	2,476	901	470.2	2,930
MEAN	51.4	384	596	898	284	612	436	75.2	82.5	29.1	15.2	97.7
MAX	283	2,400	2,460	3,360	674	1,570	2,370	141	606	73	139	715
MIN	4.0	21	148	148	131	178	131	52	32	14	8.2	17
CFSM	1.11	8.26	12.8	19.3	6.11	13.2	9.38	1.62	1.77	.63	.33	2.10
IN.	1.28	9.22	14.78	22.26	6.37	15.18	10.46	1.86	1.98	.72	.38	2.34
AC-FT	3,160	22,860	36,650	55,190	15,800	37,630	25,940	4,620	4,910	1,790	933	5,810

CAL YR 1970 TOTAL 91,163.8 MEAN 250 MAX 3,460 MIN 2.5 CFSM 5.38 IN 72.93 AC-FT 180,800
WTR YR 1971 TOTAL 108,544.3 MEAN 297 MAX 3,360 MIN 4.0 CFSM 6.39 IN 86.84 AC-FT 215,300

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0730	9.75	3,440	1-17	2330	11.03	4,270
12-31	0130	10.66	4,030	4- 9	1830	9.73	3,420

14324700 South Fork Coquille River near Illahe, Oreg.

LOCATION.--Lat 42°43'30", long 124°00'40", in NW¼ sec.16, T.33 S., R.11 W. Douglas County, Siskiyou National Forest, on left bank 1.0 miles downstream from Lockhart Creek, 7.0 miles north of Illahe, and at mile 85.1.

DRAINAGE AREA.--40.6 sq mi at measuring site 1.2 miles upstream from gage.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,871.04 ft above mean sea level (levels by Pacific Power & Light Co.).

AVERAGE DISCHARGE.--15 years, 194 cfs (64.89 inches per year, 140,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,820 cfs Jan. 16 (gage height, 9.72 ft); minimum, 1.4 cfs Oct. 3-5.
Period of record: Maximum discharge, 12,000 cfs Dec. 22, 1964 (gage height, 11.80 ft), from rating curve extended above 3,000 cfs on basis of slope-area measurement at gage height 9.54 ft; minimum, 1.2 cfs Sept. 27-29, 1967.
Flood of Dec. 21, 1955, reached a stage of about 10.8 ft (discharge, about 8,600 cfs).

REMARKS.--Records good. No regulation or diversion above station. Records given herein are for measuring site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	15	277	880	185	147	419	274	73	27	7.8	14
2	1.7	13	225	507	171	137	370	256	76	25	7.5	23
3	1.7	12	670	346	151	198	349	240	73	24	7.2	17
4	1.7	12	722	265	161	200	346	223	68	22	7.2	12
5	1.7	19	855	215	295	173	352	193	63	22	6.9	9.5
6	1.7	46	1,310	178	319	157	346	167	59	21	7.2	9.2
7	1.7	63	2,040	153	259	157	301	151	55	19	6.9	8.3
8	1.7	102	995	145	213	157	349	143	51	19	6.6	7.5
9	1.9	198	586	230	180	157	920	126	47	20	6.4	6.9
10	1.9	114	412	622	171	430	734	111	45	19	6.1	6.6
11	1.9	169	391	510	167	1,410	598	102	41	18	5.8	6.4
12	1.9	301	319	358	157	1,470	534	99	40	17	5.8	6.1
13	1.7	178	268	283	145	790	514	95	41	16	5.5	5.8
14	1.7	113	271	265	145	554	493	82	38	15	5.2	5.2
15	1.4	86	437	2,600	178	408	437	77	34	15	5.5	5.0
16	1.4	95	825	3,260	159	331	374	110	32	14	5.5	4.7
17	1.4	79	530	4,430	137	277	416	99	30	13	5.2	4.4
18	2.2	75	358	2,390	128	240	493	92	32	13	5.0	4.1
19	2.4	69	274	1,480	124	225	451	87	30	13	5.0	3.8
20	8.6	62	240	1,060	113	250	451	87	27	12	5.0	3.6
21	29	58	203	646	108	283	367	86	26	11	5.8	3.6
22	29	74	167	423	126	444	337	80	24	10	8.0	3.6
23	96	714	145	340	155	970	337	76	23	9.9	7.2	3.6
24	95	1,790	126	304	210	955	328	70	22	9.5	6.1	3.6
25	77	900	113	265	286	795	340	68	53	9.5	5.5	5.5
26	89	586	104	233	238	1,320	426	74	47	9.2	5.2	15
27	51	1,130	101	210	210	890	479	68	37	8.9	5.2	12
28	34	706	381	198	178	650	381	63	34	8.6	5.2	16
29	26	402	678	188	------	558	331	60	31	8.3	5.2	70
30	21	328	1,190	180	------	570	292	63	29	8.3	5.2	64
31	17	------	2,180	185	------	499	------	64	------	8.0	7.2	------
TOTAL	606.0	8,509	17,393	23,349	5,069	15,802	12,865	3,586	1,281	465.2	189.1	360.0
MEAN	19.5	284	561	753	181	510	429	116	42.7	15.0	6.10	12.0
MAX	96	1,790	2,180	4,430	319	1,470	920	274	76	27	8.0	70
MIN	1.4	12	101	145	108	137	292	60	22	8.0	5.0	3.6
CFSM	.48	7.00	13.8	18.5	4.46	12.6	10.6	2.86	1.05	.37	.15	.30
IN.	.56	7.80	15.94	21.39	4.64	14.48	11.79	3.29	1.17	.43	.17	.33
AC-FT	1,200	16,880	34,500	46,310	10,050	31,340	25,520	7,110	2,540	923	375	714

CAL YR 1970 TOTAL 76,186.4 MEAN 209 MAX 2,970 MIN 1.4 CFSM 5.15 IN 69.81 AC-FT 151,100
WTR YR 1971 TOTAL 89,474.3 MEAN 245 MAX 4,430 MIN 1.4 CFSM 6.03 IN 81.98 AC-FT 177,500

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0900	7.21	2,210	1-16	2030	9.72	5,820
12- 7	0730	7.75	2,710	3-11	2130	7.83	2,790
12-31	0130	8.39	3,450				

14325000 South Fork Coquille River at Powers, Oreg.

LOCATION.--Lat 42°53'30", long 124°04'10", in SE¼ sec.12, T.31 S., R.12 W., Coos County, on left bank 0.6 mile downstream from highway bridge at Powers, 0.9 mile upstream from Woodward Creek, and at mile 64.5.

DRAINAGE AREA.--169 sq mi.

PERIOD OF RECORD.--September 1916 to September 1926, October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 197.42 ft above mean sea level. Prior to Nov. 17, 1938, nonrecording gages at various sites within 1 mile of present site at different datums.

AVERAGE DISCHARGE.--52 years (1916-26, 1929-71), 790 cfs (63.48 inches per year, 572,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,800 cfs Jan. 16 (gage height, 18.85 ft); minimum, 14 cfs Oct. 16.
Period of record: Maximum discharge, 48,900 cfs Dec. 22, 1964 (gage height, 26.51 ft, from floodmarks), from rating curve extended above 19,000 cfs on basis of contracted-opening measurement at gage height 18.14 ft and slope-area measurement of peak flow; minimum, 12 cfs Sept. 22-25, 27-30, 1939, Oct. 5, 1961.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1184: 1946(M). WSP 1448: 1917-18(M), 1919, 1920(M), 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	91	2,190	3,430	728	903	1,740	835	360	161	51	159
2	16	82	2,160	1,970	683	859	1,440	777	387	147	49	325
3	16	75	4,720	1,380	616	1,670	1,240	743	358	137	50	178
4	16	72	3,440	1,080	646	1,780	1,140	694	325	127	49	113
5	16	102	3,110	870	1,020	1,450	1,120	627	295	120	49	91
6	16	264	4,040	732	1,090	1,190	1,080	559	273	115	49	99
7	17	397	7,270	642	913	1,210	939	529	257	109	47	81
8	16	572	3,540	589	770	1,230	1,180	516	238	103	45	70
9	16	1,100	2,040	695	676	1,060	5,280	471	223	105	42	62
10	16	603	1,460	1,860	643	2,570	3,850	428	214	102	41	57
11	16	866	1,400	2,030	631	6,950	2,850	408	198	97	40	53
12	16	1,410	1,130	1,510	593	7,270	2,420	405	187	92	40	50
13	16	805	957	1,180	558	4,160	2,020	414	190	88	40	47
14	16	542	933	1,610	566	3,020	1,710	348	179	84	38	44
15	16	413	1,560	13,500	899	2,360	1,460	331	164	82	36	41
16	15	646	3,600	14,500	807	1,880	1,280	490	150	80	36	39
17	16	535	2,190	20,600	672	1,510	2,180	446	143	76	35	37
18	17	440	1,460	10,800	621	1,280	2,740	392	155	73	34	34
19	21	383	1,090	6,370	664	1,130	1,920	371	166	71	33	32
20	49	330	1,110	4,490	606	1,100	1,730	357	144	69	33	30
21	193	301	1,090	2,790	566	1,120	1,440	346	130	64	34	30
22	251	300	866	2,050	626	1,580	1,250	319	121	62	54	30
23	718	3,520	718	1,650	782	3,360	1,220	304	117	61	52	29
24	651	9,890	618	1,460	970	3,490	1,190	287	112	61	42	29
25	457	4,250	548	1,260	1,320	2,790	1,300	280	482	59	39	37
26	541	2,340	501	1,100	1,140	5,500	1,390	322	402	57	37	90
27	304	5,120	478	970	1,130	4,020	1,430	306	280	55	37	88
28	205	2,910	2,240	867	1,050	2,720	1,200	286	227	55	40	98
29	154	1,680	3,910	797	------	2,220	1,040	274	198	54	40	582
30	126	1,630	4,930	747	------	2,270	911	287	177	54	40	485
31	106	------	9,020	739	------	2,130	------	295	------	53	57	------
TOTAL	4,065	41,669	74,319	104,268	21,986	75,782	51,690	13,447	6,852	2,673	1,309	3,140
MEAN	131	1,389	2,397	3,363	785	2,445	1,723	434	228	86.2	42.2	105
MAX	718	9,890	9,020	20,600	1,320	7,270	5,280	835	482	161	57	582
MIN	15	72	478	589	558	859	911	274	112	53	33	29
CFSM	.78	8.22	14.2	19.9	4.65	14.5	10.2	2.57	1.35	.51	.25	.62
IN.	.89	9.17	16.36	22.95	4.84	16.68	11.38	2.96	1.51	.59	.29	.69
AC-FT	8,060	82,650	147,400	206,800	43,610	150,300	102,500	26,670	13,590	5,300	2,600	6,230

CAL YR 1970 TOTAL 336,241 MEAN 921 MAX 13,400 MIN 15 CFSM 5.45 IN 74.01 AC-FT 666,900
WTR YR 1971 TOTAL 401,200 MEAN 1,099 MAX 20,600 MIN 15 CFSM 6.50 IN 88.31 AC-FT 795,800

PEAK DISCHARGE (BASE, 9,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0500	12.13	12,800	1-16	2000	18.85	27,800
12- 7	0730	10.43	9,880	3-11	2100	11.98	12,800
12-31	0230	12.57	14,000				

14326800 North Fork Coquille River near Fairview, Oreg.

LOCATION.--Lat 43°10'45", long 124°05'10", in NE¼ sec.2, T.28 S., R.12 W., Coos County, on right bank 0.7 mile downstream from Lost Creek and 2.6 miles south of Fairview, and at mile 21.7.

DRAINAGE AREA.--74.0 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 70 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 299 cfs (54.87 inches per year, 216,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,140 cfs Jan. 17 (gage height, 17.89 ft); minimum, 4.1 cfs Oct. 2-5, 14.
Period of record: Maximum discharge, 4,660 cfs Jan. 28, 1965 (gage height, 17.06 ft); minimum, 2.0 cfs Sept. 9, 10, 1967.

REMARKS.--Records fair. No regulation. Several diversions for irrigation by pumping above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	23	900	1,300	268	652	577	220	73	69	17	97
2	4.6	21	1,300	850	241	577	469	202	73	62	16	270
3	4.1	20	1,500	600	220	837	406	198	66	57	16	168
4	4.1	20	1,100	444	462	991	350	180	62	53	15	78
5	5.1	23	850	364	805	877	310	168	58	50	15	54
6	5.1	36	700	307	621	738	271	151	58	47	15	53
7	4.6	42	1,700	256	497	702	250	140	56	43	15	43
8	6.1	109	1,100	233	406	720	316	129	53	40	14	35
9	5.6	339	700	500	350	585	1,700	123	50	39	12	31
10	4.6	203	450	1,300	313	715	1,910	112	51	40	12	28
11	4.6	244	444	1,200	277	1,350	1,090	107	50	39	12	26
12	5.1	444	364	1,000	244	1,990	832	105	46	36	12	25
13	5.1	225	332	600	225	1,800	639	114	52	33	12	23
14	4.6	142	357	679	259	1,320	513	96	52	32	12	21
15	5.1	103	513	2,600	477	971	423	91	45	31	11	20
16	5.1	190	1,000	3,400	399	742	378	134	41	30	12	19
17	5.1	120	900	3,800	332	585	895	129	44	28	11	17
18	9.0	95	600	3,400	304	469	907	114	64	26	10	15
19	17	109	521	3,200	350	402	625	91	62	28	10	15
20	20	94	473	2,580	319	346	581	85	50	24	10	14
21	31	82	462	1,330	292	307	517	81	45	23	12	14
22	74	85	378	855	357	448	451	75	39	22	31	14
23	145	1,000	329	864	406	715	455	71	38	20	27	14
24	131	2,600	292	796	565	697	444	67	69	20	18	14
25	138	1,400	265	720	733	617	409	69	384	19	15	17
26	178	700	238	625	634	792	367	91	238	19	13	64
27	76	1,400	247	529	693	864	328	94	153	19	13	51
28	50	1,000	585	448	697	706	295	78	100	19	13	74
29	37	550	900	385	------	569	262	73	94	19	13	272
30	31	650	1,200	336	------	589	232	71	80	19	13	213
31	26	------	2,000	301	------	675	------	69	------	18	25	------
TOTAL	1,046.7	12,069	22,700	35,802	11,746	24,348	17,202	3,528	2,346	1,024	452	1,799
MEAN	33.8	402	732	1,155	420	785	573	114	78.2	33.0	14.6	60.0
MAX	178	2,600	2,000	3,800	805	1,990	1,910	220	384	69	31	272
MIN	4.1	20	238	233	220	307	232	67	38	18	10	14
CFSM	.46	5.43	9.89	15.6	5.68	10.6	7.74	1.54	1.06	.45	.20	.81
IN.	.53	6.07	11.41	18.00	5.90	12.24	8.65	1.77	1.18	.51	.23	.90
AC-FT	2,080	23,940	45,030	71,010	23,300	48,290	34,120	7,000	4,650	2,030	897	3,570

CAL YR 1970 TOTAL 111,242.2 MEAN 305 MAX 3,800 MIN 3.1 CFSM 4.12 IN 55.92 AC-FT 220,600
WTR YR 1971 TOTAL 134,062.7 MEAN 367 MAX 3,800 MIN 4.1 CFSM 4.96 IN 67.39 AC-FT 265,900

PEAK DISCHARGE (BASE, 3,000 CFS).--Jan. 17 (time unknown) 4,140 cfs (17.89 ft).

NOTE.--No gage-height record Jan. 16-19.

14328000 Rogue River above Prospect, Oreg.

LOCATION.--Lat 42°46'30", long 122°29'55", in SE¼NE¼ sec.19, T.32 S., R.3 E., Jackson County, on left bank 1.4 miles upstream from Pacific Power & Light Co. diversion dam, 1.8 miles northwest of Prospect, and at mile 173.4.

DRAINAGE AREA.--312 sq mi.

PERIOD OF RECORD.--January 1908 to February 1912, October 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1925, published as "near Prospect."

GAGE.--Water-stage recorder. Altitude of gage is 2,620 ft (from river-profile map). Prior to Feb. 17, 1912, nonrecording gage at several sites within a few hundred feet upstream at various datums.

AVERAGE DISCHARGE.--51 years (1908-11, 1923-71), 811 cfs (35.30 inches per year, 587,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,300 cfs Jan. 18 (gage height, 7.40 ft); minimum, 382 cfs Oct. 15, 17.
Period of record: Maximum discharge, 22,400 cfs Dec. 22, 1964 (gage height, 11.55 ft, from floodmark), from rating curve extended above 9,000 cfs on basis of slope-area measurement at 16,600 cfs; minimum observed, 200 cfs Nov. 20, 1931.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1248: 1925, 1927(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	392	438	982	657	1,180	801	1,220	1,590	1,730	1,220	674	632
2	391	443	911	556	1,180	808	1,210	1,720	1,570	1,190	668	674
3	391	443	856	580	1,120	808	1,220	2,120	1,540	1,140	662	626
4	391	457	797	560	1,100	787	1,270	2,370	1,550	1,110	656	602
5	391	579	798	540	1,040	745	1,420	2,170	1,560	1,060	650	596
6	392	597	921	520	1,020	724	1,640	1,920	1,680	1,040	644	590
7	394	568	1,270	573	960	717	1,640	2,080	1,780	1,000	644	590
8	392	974	1,310	608	928	710	1,470	2,340	1,740	984	632	585
9	392	1,240	1,110	708	906	692	1,550	2,300	1,730	968	632	579
10	394	748	991	960	984	710	1,500	2,310	1,790	976	626	579
11	391	970	975	868	1,130	829	1,340	2,600	1,750	928	620	574
12	391	1,270	883	768	1,230	1,120	1,240	3,140	1,690	906	614	574
13	389	868	846	715	1,350	968	1,210	3,770	1,660	892	614	574
14	387	728	810	682	1,360	885	1,260	2,870	1,580	871	608	568
15	386	651	810	810	1,580	829	1,360	2,550	1,540	878	608	568
16	386	664	875	959	1,400	801	1,370	2,330	1,530	871	602	563
17	384	645	775	5,540	1,260	759	1,280	1,930	1,490	857	602	557
18	391	597	708	8,410	1,170	738	1,170	1,750	1,640	850	602	557
19	404	585	632	5,550	1,100	731	1,130	1,730	1,640	843	596	557
20	468	551	682	4,150	1,010	752	1,140	1,650	1,600	822	596	557
21	466	533	702	2,850	960	780	1,060	1,520	1,590	801	596	557
22	511	565	645	2,180	936	1,010	1,020	1,610	1,590	780	608	557
23	742	1,470	614	1,820	892	2,110	1,010	1,870	1,570	766	608	552
24	656	5,960	585	1,570	928	2,090	960	2,160	1,450	752	590	552
25	509	4,140	579	1,370	936	1,840	952	2,370	2,020	738	585	574
26	473	2,110	591	1,230	885	2,500	1,070	2,760	1,960	724	585	662
27	443	1,630	573	1,150	864	1,880	1,240	2,540	1,600	717	590	638
28	438	1,280	591	1,100	829	1,550	1,350	2,690	1,420	700	590	656
29	438	1,120	573	1,060	------	1,430	1,370	2,630	1,310	692	585	766
30	433	1,080	585	1,060	------	1,430	1,410	2,270	1,250	686	585	662
31	433	------	748	1,120	------	1,320	------	1,920	------	680	620	------
TOTAL	13,439	33,904	24,728	51,224	30,238	33,854	38,082	69,580	48,550	27,442	19,092	17,878
MEAN	434	1,130	798	1,652	1,080	1,092	1,269	2,245	1,618	885	616	596
MAX	742	5,960	1,310	8,410	1,580	2,500	1,640	3,770	2,020	1,220	674	766
MIN	384	438	573	520	829	692	952	1,520	1,250	680	585	552
CFSM	1.39	3.62	2.56	5.29	3.46	3.50	4.07	7.20	5.19	2.84	1.97	1.91
IN.	1.60	4.04	2.95	6.11	3.61	4.04	4.54	8.30	5.79	3.27	2.28	2.13
AC-FT	26,660	67,250	49,050	101,600	59,980	67,150	75,540	138,000	96,300	54,430	37,870	35,460

CAL YR 1970 TOTAL 314,852 MEAN 863 MAX 6,840 MIN 384 CFSM 2.77 IN 37.54 AC-FT 624,500

WTR YR 1971 TOTAL 408,011 MEAN 1,118 MAX 8,410 MIN 384 CFSM 3.58 IN 48.65 AC-FT 809,300

PEAK DISCHARGE (BASE, 2,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1830	6.62	7,440	5-13	0400	5.03	4,370
1-18	0730	7.40	9,300	5-26	0730	4.15	2,960
3-26	0930	4.01	2,740				

14330000 Rogue River below Prospect, Oreg.

LOCATION.--Lat 42°43'50", long 122°30'55", in SE¼NW¼ sec.6, T.33 S., R.3 E., Jackson County, on right bank 500 ft downstream from Prospect No. 1 powerplant, 1.4 miles downstream from Mill Creek, 2.0 miles southwest of Prospect, 2.1 miles upstream from South Fork Rogue River, and at mile 169.4.

DRAINAGE AREA.--379 sq mi.

PERIOD OF RECORD.--August 1913 to September 1930, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,970 ft (from topographic map). Prior to September 1927 nonrecording gage at site 1,000 ft upstream (above powerplants) at different datum, also concurrent nonrecording gage on headrace to obtain equivalent combined flow.

AVERAGE DISCHARGE.--20 years, 1,110 cfs (804,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,900 cfs Jan. 18 (gage height, 7.62 ft, from high-water mark); minimum, 547 cfs Oct. 30.
Period of record: Maximum discharge, 10,900 cfs Jan. 18, 1971; minimum, 455 cfs Oct. 13, 19, 20, 23-25, 1924.
Maximum stage since at least 1890, 12.4 ft Dec. 22, 1964, from floodmarks (discharge, 25,000 cfs), from records for station above Prospect (see station 14328000) and for station below South Fork Rogue River near Prospect (see station 14335000) after adjusting for estimated interim tributary inflow.

REMARKS.--Records good. Small fluctuations caused by powerplants 500-800 ft above station. Small diversions for irrigation above station. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1518: 1914-23, 1924(M), 1925, 1928.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	877	912	1,640	1,340	1,970	1,470	1,880	2,500	2,560	2,060	1,360	1,270
2	858	914	1,560	1,210	1,960	1,450	1,870	2,700	2,420	2,030	1,360	1,320
3	859	906	1,490	1,110	1,870	1,490	1,990	3,200	2,390	1,970	1,360	1,280
4	855	922	1,420	1,130	1,860	1,430	2,020	3,600	2,400	1,920	1,350	1,250
5	847	1,070	1,410	1,150	1,790	1,420	2,180	3,200	2,410	1,880	1,340	1,230
6	845	1,150	1,550	1,210	1,750	1,410	2,460	3,000	2,520	1,840	1,330	1,230
7	850	1,080	1,890	1,230	1,700	1,430	2,450	3,300	2,620	1,820	1,320	1,210
8	843	1,370	1,970	1,250	1,640	1,420	2,290	3,600	2,590	1,790	1,310	1,180
9	844	1,840	1,780	1,380	1,610	1,410	2,380	3,600	2,580	1,790	1,310	1,200
10	847	1,310	1,640	1,660	1,720	1,460	2,340	3,700	2,630	1,790	1,310	1,200
11	845	1,460	1,620	1,530	1,880	1,620	2,180	4,000	2,580	1,730	1,300	1,200
12	849	1,820	1,520	1,410	1,980	1,970	2,090	4,800	2,540	1,700	1,290	1,190
13	840	1,420	1,490	1,340	2,100	1,780	2,050	5,500	2,500	1,670	1,280	1,190
14	839	1,270	1,440	1,280	2,100	1,680	2,100	4,200	2,420	1,650	1,280	1,180
15	838	1,220	1,440	1,700	2,330	1,600	2,200	3,800	2,380	1,670	1,250	1,160
16	835	1,210	1,530	2,600	2,170	1,550	2,220	3,500	2,360	1,730	1,250	1,180
17	836	1,220	1,410	7,000	2,030	1,510	2,100	3,000	2,340	1,670	1,270	1,200
18	850	1,180	1,340	9,400	1,930	1,480	1,970	2,600	2,470	1,610	1,270	1,160
19	884	1,140	1,290	6,400	1,840	1,470	1,930	2,570	2,470	1,600	1,270	1,160
20	972	1,110	1,340	4,540	1,730	1,480	1,920	2,500	2,440	1,570	1,260	1,160
21	959	1,100	1,360	3,440	1,670	1,520	1,840	2,380	2,440	1,550	1,250	1,160
22	1,020	1,120	1,290	2,880	1,660	1,730	1,810	2,470	2,450	1,530	1,290	1,150
23	1,260	1,860	1,260	2,540	1,610	2,800	1,700	2,660	2,410	1,500	1,220	1,150
24	1,200	6,120	1,240	2,300	1,670	2,800	1,650	2,890	2,300	1,480	1,240	1,160
25	1,060	4,560	1,230	2,150	1,680	2,540	1,600	3,150	2,800	1,460	1,230	1,180
26	973	2,520	1,240	2,030	1,590	3,100	1,800	3,480	2,750	1,440	1,230	1,270
27	945	2,140	1,250	1,940	1,560	2,530	2,000	3,300	2,440	1,420	1,230	1,240
28	919	1,870	1,260	1,900	1,540	2,230	2,200	3,410	2,270	1,410	1,230	1,240
29	840	1,740	1,260	1,850	-------	2,110	2,200	3,370	2,150	1,400	1,220	1,390
30	774	1,720	1,250	1,850	-------	2,090	2,300	3,050	2,100	1,400	1,220	1,300
31	912	-------	1,450	1,910	-------	1,990	-------	2,710	-------	1,380	1,250	-------
TOTAL	27,975	49,274	44,860	74,660	50,940	55,970	61,720	101,740	73,730	51,460	39,680	36,390
MEAN	902	1,642	1,447	2,408	1,819	1,805	2,057	3,282	2,458	1,660	1,280	1,213
MAX	1,260	6,120	1,970	9,400	2,330	3,100	2,460	5,500	2,800	2,060	1,360	1,390
MIN	774	906	1,230	1,110	1,540	1,410	1,600	2,380	2,100	1,380	1,220	1,150
AC-FT	55,490	97,730	88,980	148,100	101,000	111,000	122,400	201,800	146,200	102,100	78,710	72,180

CAL YR 1970 TOTAL 531,990 MEAN 1,458 MAX 7,270 MIN 774 AC-FT 1,055,000
WTR YR 1971 TOTAL 668,399 MEAN 1,831 MAX 9,400 MIN 774 AC-FT 1,326,000

NOTE.--No gage-height record Jan. 14-19.

14332000 South Fork Rogue River near Prospect, Oreg.

LOCATION.--Lat 42°42'30", long 122°23'30", in SE¼SW¼ sec.7, T.33 S., R.4 E., Jackson County, on left bank 0.3 mile downstream from South Fork dam and intake of South Fork power canal, 0.31 mile downstream from Imnaha Creek, 5.6 miles southeast of Prospect, and at mile 10.2.

DRAINAGE AREA.--83.8 sq mi. Area at site above Imnaha Creek used October 1931 to September 1949, 61.3 sq mi, and Imnaha Creek near Prospect, 22.2 sq mi.

PERIOD OF RECORD.--April 1924 to September 1931, October 1949 to current year. Equivalent records for period October 1931 to September 1949 may be obtained from combined flow of South Fork Rogue River above Imnaha Creek, near Prospect and Imnaha Creek near Prospect.

GAGE.--Water-stage recorder. Altitude of gage is 3,300 ft (from topographic map). Prior to Sept. 10, 1965, at site 1,000 ft upstream at different datum.

AVERAGE DISCHARGE.--47 years (1924-71), 176 cfs (127,500 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 1,630 cfs Nov. 24 (gage height, 5.12 ft); minimum daily, 0.14 cfs Oct. 30 to Nov. 4.

Period of record: Maximum discharge, 7,010 cfs Dec. 22, 1964 (gage height, 11.1 ft, from floodmark); minimum, no flow Jan. 31, 1950, Sept. 29, 30, 1967(entire flow diverted to canal).

(Combined flow).--Current year: Maximum discharge, 1,720 cfs Nov. 24; minimum daily, 61 cfs Oct. 15-17.

Period of record: Maximum discharge, 7,010 cfs Dec. 22, 1964 (no flow in canal), from rating curve extended above 410 cfs on basis of measurement of flow over dam of 3,180 cfs; minimum daily, about 35 cfs in September 1931.

REMARKS.--Records good. All records given herein include flow in South Fork power canal (completed in March 1932) which diverts 1,500 ft above station and returns water to Rogue River above South Fork Rogue River; practically no storage above diversion dam.

REVISIONS (WATER YEARS).--WSP 1318: 1925(M), 1927(M), 1930(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	69	194	125	270	205	371	353	405	371	161	131
2	63	69	182	118	258	199	346	410	377	352	160	142
3	63	69	174	146	245	197	310	507	366	329	158	134
4	62	69	162	144	248	193	303	529	369	311	157	127
5	62	79	169	144	249	186	331	541	376	290	155	124
6	63	91	183	144	249	183	358	517	404	275	154	124
7	63	88	205	137	235	183	378	555	451	257	152	123
8	63	128	206	115	227	177	365	624	462	246	151	120
9	63	245	190	115	221	173	391	605	453	247	149	118
10	63	136	181	123	228	177	387	616	541	255	148	117
11	63	164	179	122	240	189	357	671	496	232	146	117
12	62	219	166	124	243	201	337	764	463	223	145	115
13	62	141	167	124	254	191	329	873	440	215	143	115
14	62	118	161	124	266	187	328	747	412	210	142	114
15	61	107	163	129	316	183	340	700	409	206	141	112
16	61	110	162	178	293	182	356	650	407	201	140	111
17	61	106	153	921	278	176	342	562	394	197	139	110
18	62	101	149	1,680	266	171	317	517	425	194	138	110
19	63	99	144	1,320	253	169	305	505	416	192	137	139
20	76	94	145	1,170	241	169	310	489	444	188	135	109
21	73	91	142	852	235	169	288	446	444	185	135	109
22	72	99	138	733	231	181	278	449	438	182	141	107
23	121	228	135	634	223	371	272	499	428	179	136	107
24	97	1,060	131	552	236	433	255	554	386	177	132	107
25	80	826	129	483	231	458	248	620	579	174	131	115
26	73	469	127	428	221	553	250	723	796	171	130	133
27	71	332	125	387	218	495	266	657	611	169	129	125
28	69	249	128	353	212	451	287	634	480	168	128	125
29	69	222	127	321	------	430	299	571	417	165	126	139
30	68	215	125	300	------	416	317	507	386	163	127	125
31	69	------	123	283	------	391	------	443	------	162	132	------
TOTAL	2,123	6,093	4,875	12,569	6,887	8,039	9,621	17,838	13,475	6,886	4,358	3,574
MEAN	68.5	203	157	405	246	259	321	575	449	222	142	119
MAX	121	1,060	206	1,680	316	553	391	873	796	371	161	142
MIN	61	69	125	115	212	169	248	353	366	162	126	107
AC-FT	4,210	12,090	9,670	24,930	13,660	15,950	19,080	35,380	26,730	13,660	8,720	7,090

CAL YR 1970 TOTAL 64,515.0 MEAN 177 MAX 1,060 MIN 61 AC-FT 128,000
WTR YR 1971 TOTAL 96,378.0 MEAN 264 MAX 1,680 MIN 61 AC-FT 191,200

14333500 Red Blanket Creek near Prospect, Oreg.

LOCATION.--Lat 42°46'40", long 122°25'35", in NW¼NE¼ sec.23, T.32 S., R.3 E., Jackson County, on right bank 1.8 miles downstream from Lick Creek, 3.7 miles northeast of Prospect, and at mile 4.8.

DRAINAGE AREA.--45.5 sq mi.

PERIOD OF RECORD.--May 1925 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,780 ft (from river-profile map). Prior to Sept. 7, 1949, nonrecording gage at several sites within 2.5 miles of present site at various datums.

AVERAGE DISCHARGE.--46 years, 115 cfs (83,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,490 cfs Nov. 24 (gage height, 5.24 ft); minimum, 46 cfs Oct. 4.
Period of record: Maximum discharge, 3,190 cfs Dec. 22, 1964 (gage height, 7.85 ft), from rating curve extended above 1,500 cfs; minimum observed, 34 cfs Sept. 3, 4, 25, Oct. 9, 16, 1931.

REMARKS.--Records good. No regulation. Small diversion above station for irrigation below.

REVISIONS (WATER YEARS).--WSP 1318: 1926-28, 1930. WSP 1348: 1943(M), 1948(M), 1953. WSP 1738: 1927(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	65	150	98	181	123	174	161	211	245	121	103
2	49	64	140	93	178	120	170	175	196	240	120	108
3	49	64	130	98	171	124	167	200	192	236	118	99
4	49	64	120	93	169	120	168	208	197	228	116	94
5	49	80	110	86	166	116	177	202	201	222	112	92
6	49	78	130	86	159	114	194	191	214	217	112	92
7	49	78	160	85	151	114	199	196	232	211	111	90
8	49	132	190	88	146	112	193	217	236	205	110	89
9	52	161	170	107	143	111	201	211	238	203	109	88
10	57	100	150	141	160	118	191	212	269	202	108	87
11	57	153	140	124	172	130	180	232	271	188	107	87
12	56	164	140	115	183	140	173	270	256	181	104	86
13	56	112	130	111	193	132	171	301	250	176	104	86
14	55	98	120	109	196	127	173	256	244	173	102	85
15	55	91	120	119	212	123	175	240	242	176	101	85
16	55	93	130	179	193	120	178	226	245	174	100	81
17	55	89	110	673	179	116	170	204	243	171	100	81
18	58	86	112	1,090	169	112	161	191	255	166	99	81
19	58	84	108	767	159	112	157	190	263	164	99	81
20	71	80	108	581	149	113	156	185	268	156	98	81
21	68	80	107	400	144	114	147	175	279	150	98	80
22	70	80	103	328	143	149	145	176	286	146	102	80
23	124	200	100	278	137	213	142	193	290	143	98	79
24	88	1,000	97	247	150	228	135	217	274	140	97	79
25	80	700	96	225	140	245	134	247	368	137	96	86
26	74	400	94	210	134	295	137	279	404	135	95	94
27	70	260	93	198	133	241	140	257	326	133	93	88
28	67	200	97	187	130	215	143	265	281	128	92	95
29	67	170	97	178	------	204	146	256	262	126	91	107
30	66	160	95	175	------	199	150	244	249	124	92	98
31	65	------	108	178	------	187	------	223	------	122	97	------
TOTAL	1,916	5,186	3,755	7,447	4,540	4,687	4,947	6,800	7,742	5,418	3,202	2,662
MEAN	61.8	173	121	240	162	151	165	219	258	175	103	88.7
MAX	124	1,000	190	1,090	212	295	201	301	404	245	121	108
MIN	49	64	93	85	130	111	134	161	192	122	91	79
AC-FT	3,800	10,290	7,450	14,770	9,010	9,300	9,810	13,490	15,360	10,750	6,350	5,280

CAL YR 1970 TOTAL 43,455 MEAN 119 MAX 1,000 MIN 49 AC-FT 86,190
WTR YR 1971 TOTAL 58,302 MEAN 160 MAX 1,090 MIN 49 AC-FT 115,600

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1400	5.24	1,490	5-12	2330	3.41	335
1-18	0330	4.79	1,200	6-25	1700	3.60	454
3-26	0230	3.36	325				

14334700 South Fork Rogue River, south of Prospect, Oreg.

LOCATION.--Lat 42°42'43", long 122°30'20", in NW¼SE¼ sec.7, T.33 S., R.3 E., Jackson County, on right bank 200 ft upstream from unnamed tributary, 0.6 mile upstream from Smith Creek, 1.2 miles downstream from Beaver Dam Creek, 2.8 miles southwest of Prospect, and at mile 2.4.

DRAINAGE AREA.--246 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,030 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 7,430 cfs Jan. 18 (gage height, 11.5 ft, from floodmark); minimum daily, 56 cfs Oct. 1. Maximum stage since at least 1890, 20.1 ft, Dec. 22, 1964, from floodmarks at gage (discharge, 28,500 cfs).

REMARKS.--Records good. Some regulation by South Fork power canal dam upstream. Power diversions above station from South Fork Rogue River, Middle Fork Rogue River and Red Blanket Creek divert water to Rogue River via Main Canal. During summer base flow all of streamflow is diverted for power except that for fish life. Base flow at station is principally from springs downstream from power diversions. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	72	490	239	660	490	1,040	665	734	720	218	147
2	58	71	450	213	644	464	974	729	669	694	213	173
3	60	71	420	205	615	479	847	1,050	648	660	209	162
4	62	69	400	190	627	472	803	1,230	660	627	203	136
5	64	84	390	171	644	439	808	1,140	673	599	196	131
6	64	82	440	150	644	393	847	893	729	575	192	130
7	64	79	550	143	607	397	877	893	794	552	188	128
8	64	171	650	150	583	393	822	1,030	752	528	188	124
9	64	461	580	220	559	359	893	985	822	524	181	121
10	64	198	500	390	611	362	877	990	1,040	555	171	119
11	64	283	480	352	660	494	808	1,090	985	490	167	119
12	64	468	450	330	690	686	761	1,380	893	461	167	116
13	64	225	420	301	725	636	738	1,630	852	443	164	115
14	64	143	400	295	743	579	734	1,280	818	425	160	119
15	64	108	400	390	872	536	738	1,170	808	418	169	122
16	64	111	420	766	808	513	770	1,070	808	411	175	118
17	64	107	400	4,000	747	472	770	898	794	397	166	112
18	66	94	350	6,500	703	446	716	808	867	383	143	114
19	70	93	283	4,400	656	435	686	779	862	372	143	114
20	95	81	280	3,460	607	439	694	752	914	355	140	114
21	92	76	263	2,320	583	446	652	686	919	330	139	114
22	89	85	237	1,780	571	640	632	681	924	323	148	111
23	192	411	211	1,480	544	1,200	615	752	924	311	142	111
24	181	3,750	182	1,260	587	1,340	579	867	832	298	137	111
25	102	2,100	169	1,090	583	1,450	545	1,010	1,260	280	134	124
26	94	1,200	158	941	540	1,890	559	1,220	1,570	272	133	175
27	81	850	143	852	544	1,570	579	1,090	1,140	349	133	164
28	78	650	155	779	524	1,370	570	1,100	877	252	133	164
29	119	550	169	720	------	1,270	599	1,010	775	247	131	225
30	242	530	155	686	------	1,220	619	914	729	232	131	170
31	75	------	252	669	------	1,120	------	798	------	220	143	------
TOTAL	2,644	13,273	10,847	35,442	17,881	22,990	22,152	30,590	26,072	13,303	5,057	4,003
MEAN	85.3	442	350	1,143	639	742	738	987	869	429	163	133
MAX	242	3,750	650	6,500	872	1,890	1,040	1,630	1,570	720	218	225
MIN	56	69	143	143	524	359	545	665	648	220	131	111
AC-FT	5,240	26,330	21,520	70,300	35,470	45,600	43,940	60,680	51,710	26,390	10,030	7,940

CAL YR 1970 TOTAL 126,813 MEAN 347 MAX 4,000 MIN 54 AC-FT 251,500
WTR YR 1971 TOTAL 204,254 MEAN 560 MAX 6,500 MIN 56 AC-FT 405,100

14335500 South Fork Big Butte Creek near Butte Falls, Oreg.

LOCATION.--Lat 42°32'25", long 122°33'15", in NE¼SW¼ sec.11, T.35 S., R.2 E., Jackson County, on right bank 10 ft downstream from Ginger Creek, 0.6 mile east of town of Butte Falls, and at mile 14.0.

DRAINAGE AREA.--138 sq mi.

PERIOD OF RECORD.--September 1910 to October 1911 (published as "at Butte Falls"), August to October 1915, October 1917 to September 1922, March 1925 to current year. Monthly discharge only August, September 1915, published in WSP 1318.

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1968. Altitude of gage is 2,360 ft (from river-profile map). Sept. 21, 1910, to Sept. 30, 1922, nonrecording gage at site 300 ft upstream at different datums.

AVERAGE DISCHARGE.--52 years (1910-11, 1917-22, 1925-71), 159 cfs (115,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,520 cfs Jan. 18 (gage height, 4.34 ft); minimum, 40 cfs Oct. 16.
Period of record: Maximum discharge, 12,600 cfs Dec. 22, 1964 (gage height, 7.65 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum, 33 cfs Oct. 2, 1968.

REMARKS.--Records good. Flow slightly regulated since 1952 by Willow Creek Reservoir (capacity, 7,320 acre-ft). Diversions for irrigation above station and for municipal water supply for Medford (since 1927) and Butte Falls.

REVISIONS (WATER YEARS).--WSP 1288: 1911, 1918-19, 1921-22, 1929. WSP 1318: 1918-19. WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	50	196	150	269	234	401	281	228	134	91	98
2	61	48	178	130	257	217	374	297	210	132	91	100
3	46	48	182	115	249	217	357	321	200	129	91	100
4	44	48	169	108	265	220	353	317	192	126	91	98
5	46	52	166	106	337	206	357	317	186	123	91	96
6	46	55	169	103	345	196	374	301	182	121	91	98
7	46	53	253	100	321	706	396	301	178	118	91	98
8	46	69	277	103	301	210	370	309	175	116	91	91
9	46	100	231	132	289	206	392	297	175	118	91	89
10	46	71	196	182	289	231	410	289	200	123	91	89
11	46	89	182	169	293	337	370	289	186	116	89	89
12	46	129	160	163	297	495	349	317	172	113	87	89
13	46	79	151	154	305	450	337	353	169	113	89	87
14	44	69	154	166	313	338	333	313	163	110	89	89
15	44	63	182	217	353	353	329	297	154	110	89	89
16	42	61	231	416	329	332	341	277	151	110	89	87
17	44	57	189	1,420	305	313	365	253	142	108	91	87
18	46	57	166	2,020	297	281	353	238	151	108	91	87
19	46	59	145	1,340	289	269	329	234	145	106	91	87
20	50	57	140	1,180	258	269	349	224	148	100	91	89
21	52	55	137	856	245	269	333	214	140	100	91	89
22	52	59	126	664	253	338	321	203	129	100	96	89
23	79	81	116	585	242	628	313	200	129	98	93	89
24	71	334	108	500	261	718	301	196	129	98	89	89
25	65	450	100	445	281	706	289	203	151	98	87	93
26	61	253	98	392	257	765	277	277	217	96	91	106
27	53	293	98	353	257	652	277	238	189	96	91	103
28	52	242	106	329	253	550	277	220	160	96	91	96
29	50	192	113	305	------	500	277	210	148	91	91	123
30	50	224	108	285	------	485	277	203	140	91	93	100
31	50	------	175	277	------	450	------	206	------	91	100	------
TOTAL	1,581	3,497	5,002	13,465	8,010	11,641	10,181	8,195	5,039	3,389	2,819	2,814
MEAN	51.0	117	161	434	286	376	339	264	168	109	90.9	93.8
MAX	79	450	277	2,020	353	765	410	353	228	134	100	123
MIN	42	48	98	100	242	196	277	196	129	91	87	87
AC-FT	3,140	6,940	9,920	26,710	15,890	23,090	20,190	16,250	9,990	6,720	5,590	5,580

CAL YR 1970 TOTAL 47,326 MEAN 130 MAX 1,010 MIN 42 AC-FT 93,870
WTR YR 1971 TOTAL 75,633 MEAN 207 MAX 2,020 MIN 42 AC-FT 150,000

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0600	2.35	585	3-11	2300	2.28	550
1-18	0400	4.34	2,520	3-26	0300	2.72	814

14337500 Big Butte Creek near McLeod, Oreg.

LOCATION.--Lat 42°39'05", long 122°41'25", in NE¼NW¼ sec.3, T.34 S., R.1 E., Jackson County, on right bank 225 ft upstream from county road bridge, 0.9 mile south of McLeod, and at mile 0.64.

DRAINAGE AREA.--245 sq mi.

PERIOD OF RECORD.--October 1945 to September 1957. October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,525.95 ft above mean sea level. Oct. 9, 1945, to Sept. 30, 1957, nonrecording gage at site 260 ft downstream at datum 0.53 ft higher.

AVERAGE DISCHARGE.--16 years, 312 cfs (226,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,640 cfs Jan. 18 (gage height, 11.04 ft); minimum, 45 cfs Oct. 4.

Period of record: Maximum discharge, 8,950 cfs Dec. 22, 1955 (gage height, 12.75 ft, site and datum then in use), from rating curve extended above 3,300 cfs on basis of slope-area measurement of peak flow; minimum, 29 cfs May 3, 1968.

Flood of Dec. 22, 1964, reached a stage of 18.6 ft, present site, from floodmark by local resident (discharge, 16,800 cfs), from rating curve, at former site, extended above 9,000 cfs and field estimate of overflow.

REMARKS.--Records good. Slight regulation by fish hatchery 600 ft above station. Several diversions in the vicinity of Butte Falls, the two largest being the city of Medford diversion and Eagle Point Irrigation District Canal. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	113	528	443	441	404	790	410	280	127	69	71
2	49	113	526	315	425	366	703	423	243	123	69	74
3	48	112	941	241	400	471	593	467	225	118	68	74
4	46	96	563	214	474	468	569	454	213	116	68	72
5	104	86	430	192	774	407	572	444	204	116	68	69
6	108	99	414	180	703	371	598	420	195	114	69	69
7	108	78	807	171	602	419	659	407	191	111	68	69
8	110	137	793	181	545	409	678	416	189	108	67	63
9	110	220	599	278	502	391	844	401	186	106	66	60
10	112	114	461	495	497	473	828	376	211	113	65	60
11	111	194	428	436	502	820	716	364	201	106	65	60
12	112	361	350	391	508	1,250	656	397	185	103	64	61
13	112	150	325	345	520	1,020	625	474	179	100	64	59
14	108	111	353	342	532	858	604	401	169	98	63	60
15	98	98	525	960	636	738	558	371	158	97	65	60
16	98	94	892	1,740	570	693	550	352	149	94	64	61
17	99	89	517	4,390	519	644	672	318	140	90	63	63
18	102	86	384	4,740	509	559	675	290	146	91	63	69
19	103	85	305	2,950	515	507	562	274	144	90	62	64
20	110	84	287	2,520	430	488	627	262	143	84	63	65
21	113	82	270	1,740	399	487	585	251	138	82	63	61
22	117	89	243	1,320	420	746	542	237	126	81	65	61
23	164	328	219	1,130	407	1,380	543	229	124	80	68	60
24	163	1,900	192	972	415	1,510	510	219	124	78	64	59
25	141	1,460	176	829	479	1,570	470	224	149	77	62	61
26	140	652	167	719	426	1,710	443	330	224	75	64	82
27	122	1,240	166	639	438	1,320	425	276	204	74	64	85
28	116	726	258	576	433	1,080	420	256	160	75	64	74
29	114	462	497	522	------	986	414	244	142	75	62	131
30	114	562	352	481	------	968	409	232	133	74	64	107
31	114	------	722	459	------	887	------	235	------	68	69	------
TOTAL	3,315	10,021	13,690	30,911	14,021	24,400	17,840	10,454	5,275	2,944	2,022	2,084
MEAN	107	334	442	997	501	787	595	337	176	95.0	65.2	69.5
MAX	164	1,900	941	4,740	774	1,710	844	474	280	127	69	131
MIN	46	78	166	171	399	366	409	219	124	68	62	59
AC-FT	6,580	19,880	27,150	61,310	27,810	48,400	35,390	20,740	10,460	5,840	4,010	4,130

CAL YR 1970 TOTAL 85,958 MEAN 236 MAX 2,570 MIN 40 AC-FT 170,500
WTR YR 1971 TOTAL 136,977 MEAN 375 MAX 4,740 MIN 46 AC-FT 271,700

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0930	7.71	2,660	1-18	0500	11.04	5,640
12- 3	1500	6.78	1,980	3-25	2100	7.32	2,350
1-15	1800	7.07	2,180				

14337600 Rogue River near McLeod, Oreg.

LOCATION.--Lat 42°39'20", long 122°42'50", in SW¼ sec.33, T.33 S., R.1 E., Jackson County, on left bank at Obstinate J Ranch, 1.3 miles downstream from Big Butte Creek, 1.6 miles southwest of McLeod, and at mile 156.0.

DRAINAGE AREA.--938 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.08 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 2,015 cfs (1,460,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,300 cfs Jan. 18 (gage height, 11.28 ft, from floodmark); minimum, 842 cfs Oct. 2, 29. Period of record: Maximum discharge, 25,300 cfs Jan. 18 (gage height, 11.28 ft, from floodmark); minimum, 604 cfs Sept. 5, 1968. Maximum stage since at least 1928, 20.35 ft Dec. 22, 1964, from floodmarks (discharge, 74,300 cfs), from slope-area measurement of peak flow.

REMARKS.--Records good. Some fluctuation caused by powerplant 15.4 miles above station. Diversions for irrigation above station; most of flow of Big Butte Creek is diverted near Butte Falls. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	1,080	3,080	2,390	3,310	2,490	3,870	3,580	3,760	2,990	1,690	1,500
2	905	1,080	2,940	2,030	3,240	2,390	3,690	3,730	3,480	2,890	1,670	1,580
3	905	1,060	3,600	1,750	3,110	2,600	3,550	4,270	3,370	2,810	1,660	1,570
4	898	1,050	3,000	1,660	3,150	2,600	3,540	4,700	3,400	2,730	1,640	1,500
5	956	1,170	2,600	1,660	3,500	2,450	3,720	4,460	3,380	2,660	1,640	1,450
6	980	1,330	3,000	1,670	3,430	2,340	4,030	4,140	3,540	2,600	1,630	1,450
7	980	1,210	4,400	1,670	3,160	2,440	4,150	4,250	3,720	2,510	1,600	1,440
8	988	1,520	4,200	1,720	3,060	2,410	3,940	4,730	3,750	2,460	1,600	1,400
9	996	2,710	3,600	2,070	2,980	2,350	4,270	4,660	3,720	2,410	1,570	1,400
10	1,010	1,680	3,000	2,890	3,070	2,500	4,270	4,630	3,930	2,470	1,560	1,380
11	1,010	1,900	2,600	2,690	3,310	3,320	3,840	4,900	3,910	2,350	1,540	1,390
12	1,000	2,940	2,400	2,430	3,330	4,460	3,640	5,690	3,720	2,270	1,550	1,400
13	998	1,900	2,200	2,260	3,580	3,870	3,520	6,900	3,650	2,220	1,530	1,370
14	992	1,580	2,200	2,200	3,510	3,430	3,520	5,630	3,520	2,180	1,520	1,360
15	977	1,450	2,600	3,350	4,030	3,140	3,580	5,090	3,470	2,170	1,500	1,360
16	967	1,390	3,600	7,000	3,710	2,990	3,650	4,810	3,450	2,150	1,500	1,360
17	975	1,410	2,680	22,000	3,450	2,840	3,780	4,170	3,370	2,120	1,510	1,370
18	990	1,350	2,350	24,000	3,280	2,680	3,620	3,840	3,540	2,070	1,490	1,360
19	1,010	1,340	2,110	15,100	3,150	2,590	3,370	3,760	3,610	2,060	1,480	1,340
20	1,110	1,280	2,090	11,900	2,890	2,560	3,450	3,650	3,590	2,010	1,480	1,340
21	1,130	1,240	2,070	8,630	2,780	2,610	3,240	3,450	3,590	1,970	1,470	1,330
22	1,200	1,270	1,960	6,810	2,780	3,280	3,160	3,480	3,580	1,920	1,500	1,330
23	1,500	2,520	1,850	5,790	2,670	5,850	3,140	3,780	3,570	1,890	1,470	1,330
24	1,610	13,000	1,760	5,000	2,750	6,260	3,020	4,120	3,370	1,860	1,460	1,330
25	1,280	10,200	1,700	4,380	2,950	6,110	2,900	4,550	4,150	1,830	1,440	1,360
26	1,220	5,470	1,670	3,990	2,680	7,610	2,990	5,290	4,810	1,800	1,440	1,550
27	1,130	5,640	1,670	3,660	2,680	6,050	3,150	4,910	3,940	1,750	1,450	1,530
28	1,100	4,040	1,830	3,440	2.620	5,040	3,290	5,040	3,450	1,760	1,450	1,480
29	1,070	3,270	2,260	3,270	-------	4,630	3,320	4,910	3,140	1,750	1,440	1,860
30	1,080	3,320	2,040	3,210	-------	4,500	3,330	4,480	3,050	1,720	1,440	1,640
31	1,080	-------	3,000	3,230	-------	4,200	-------	3,990	-------	1,700	1,490	-------
TOTAL	32,959	80,400	80,060	163,850	88,160	112,590	106,540	139,590	108,530	68,080	47,410	43,060
MEAN	1,063	2,680	2,583	5,285	3,149	3,632	3,551	4,503	3,618	2,196	1,529	1,435
MAX	1,610	13,000	4,400	24,000	4,030	7,610	4,270	6,900	4,810	2,990	1,690	1,860
MIN	898	1,050	1,670	1,660	2,620	2,340	2,900	3,450	3,050	1,700	1,440	1,330
AC-FT	65,370	159,500	158,800	325,000	174,900	223,300	211,300	276,900	215,300	135,000	94,040	85,410

CAL YR 1970 TOTAL 786,454 MEAN 2,155 MAX 13,600 MIN 898 AC-FT 1,560,000
WTR YR 1971 TOTAL 1,071,229 MEAN 2,935 MAX 24,000 MIN 898 AC-FT 2,125,000

NOTE.--No gage-height record Jan. 16-18.

14338000 Elk Creek near Trail, Oreg.

LOCATION.--Lat 42°39'50", long 122°44'50", in SW¼ sec.30, T.33 S., R.1 E., Jackson County, on right bank 3.3 miles northeast of Trail and at mile 0.4.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--October 1945 to current year. Prior to March 1946 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,456.56 ft above mean sea level. Prior to July 5, 1946, nonrecording gage at various sites within 1 mile of present site at different datums. July 5, 1946, to June 22, 1950, nonrecording gage, and June 23, 1950, to May 23, 1954, water-stage recorder, at site 0.3 mile upstream at datum 12.14 ft higher.

AVERAGE DISCHARGE.--26 years, 232 cfs (168,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,550 cfs Jan. 17 (gage height, 11.72 ft); minimum, 1.9 cfs Oct. 2.
Period of record: Maximum discharge, 19,200 cfs Dec. 22, 1964 (gage height, 18.84 ft), from rating curve extended above 4,700 cfs on basis of slope-area measurement of peak flow; minimum, 0.40 cfs Aug. 16, 1965.

REMARKS.--Records good. No regulation. Diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	18	574	905	512	256	501	348	181	43	13	12
2	2.3	16	470	555	461	230	451	360	175	42	12	17
3	3.0	15	1,600	393	380	267	438	394	160	41	11	20
4	3.0	16	860	311	347	348	442	398	147	40	8.4	15
5	3.4	37	840	260	407	319	496	364	135	37	9.3	12
6	3.8	62	1,150	225	580	293	528	321	131	35	9.8	11
7	4.3	45	2,300	198	570	343	474	321	127	32	9.8	9.3
8	4.9	124	1,400	193	510	459	389	356	118	28	9.8	6.4
9	4.8	346	920	353	465	460	406	336	112	27	9.3	6.4
10	4.4	141	580	903	536	534	433	313	114	28	6.8	6.0
11	5.1	202	530	791	599	1,190	376	328	105	25	8.0	5.6
12	5.0	559	430	555	602	1,850	332	372	97	25	8.4	6.8
13	4.6	260	380	435	574	1,220	317	411	94	24	8.0	6.4
14	4.6	148	380	363	499	844	324	317	87	21	6.8	6.0
15	6.1	101	660	1,420	529	682	328	276	80	22	5.2	5.6
16	5.3	87	1,100	2,760	439	546	336	248	74	23	5.6	6.0
17	5.0	79	700	6,800	366	453	406	207	71	22	5.6	4.9
18	4.1	72	463	5,810	324	396	550	184	77	20	4.9	4.3
19	6.2	72	352	3,070	304	386	501	175	71	20	4.3	3.5
20	13	66	300	1,940	274	434	505	165	64	19	4.6	4.3
21	19	60	262	1,110	254	564	438	152	58	16	5.2	4.3
22	37	63	223	778	261	1,010	381	152	51	16	7.2	4.6
23	67	402	193	613	293	2,090	364	165	51	13	8.4	4.6
24	92	2,880	169	514	337	1,510	332	181	48	14	8.4	4.6
25	55	1,430	154	432	408	1,340	309	192	71	13	7.2	6.8
26	65	726	144	377	351	2,210	324	225	74	13	5.2	18
27	43	1,520	137	395	327	1,260	389	198	60	13	6.8	24
28	31	880	182	372	299	865	394	195	55	12	6.4	24
29	25	596	494	403	-------	711	360	184	52	13	6.8	58
30	22	626	501	425	-------	675	332	167	46	12	6.8	56
31	21	-------	1,730	490	-------	595	-------	155	-------	13	9.3	-------
TOTAL	572.9	11,649	20,178	34,109	11,808	24,320	12,156	8,160	2,786	722	238.3	373.4
MEAN	18.5	388	651	1,100	422	785	405	263	92.9	23.3	7.69	12.4
MAX	92	2,880	2,300	6,800	602	2,210	550	411	181	43	13	58
MIN	2.3	15	137	193	254	230	309	152	46	12	4.3	3.5
AC-FT	1,140	23,110	40,020	67,660	23,420	48,240	24,110	16,190	5,530	1,430	473	741

CAL YR 1970 TOTAL 92,873.7 MEAN 254 MAX 3,670 MIN 1.5 AC-FT 184,200
WTR YR 1971 TOTAL 127,072.6 MEAN 348 MAX 6,800 MIN 2.3 AC-FT 252,000

PEAK DISCHARGE (BASE, 2,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-26	1500	8.41	3,670	3-26	0430	7.38	2,700
1-17	1130	11.72	8,550				

14339000 Rogue River at Dodge Bridge, near Eagle Point, Oreg.

LOCATION.--Lat 42°31'30", long 122°50'30", in SE¼ sec.17, T.35 S., R.1 W., Jackson County, on right bank 50 ft upstream from Dodge Bridge, 0.7 mile downstream from Reese Creek, 4.3 miles northwest of Eagle Point, and at mile 138.61.

DRAINAGE AREA.--1,215 sq mi.

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,272.39 ft above mean sea level. Prior to Dec. 21, 1938, nonrecording gage, Dec. 21, 1938, to Aug. 15, 1968, water-stage recorder, at datum 1.27 ft higher.

AVERAGE DISCHARGE.--33 years, 2,609 cfs (1,890,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 38,300 cfs Jan. 17 (gage height, 10.96 ft); minimum, 933 cfs Oct. 1-4; minimum daily, 965 cfs Oct. 1, 4.

Period of record: Maximum discharge, 87,600 cfs Dec. 22, 1964 (gage height, 12.78 ft, datum then in use), from rating curve extended above 23,000 cfs; minimum, 611 cfs Aug. 6, 14, 29, Sept. 9, 1940.

REMARKS.--Records excellent. Some diurnal fluctuation caused by powerplant 30 miles upstream. Diversions for irrigation above station; most of flow of Big Butte Creek is diverted near Butte Falls.

REVISIONS (WATER YEARS).--WSP 1094: 1942(M), 1943, 1945(M), 1946. WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	945	1,100	4,330	4,190	4,030	3,030	4,780	4,110	4,110	3,050	1,690	1,540
2	953	1,090	4,130	3,010	3,930	2,850	4,490	4,290	3,810	2,960	1,670	1,630
3	954	1,090	5,500	2,370	3,670	3,250	4,350	4,860	3,630	2,850	1,660	1,630
4	945	1,110	4,190	2,160	3,730	3,460	4,270	5,300	3,630	2,750	1,640	1,530
5	991	1,180	3,610	2,020	4,610	3,160	4,490	5,120	3,610	2,660	1,630	1,470
6	1,010	1,400	4,510	1,950	4,650	2,920	4,860	4,720	3,750	2,600	1,620	1,470
7	1,020	1,250	7,210	1,920	4,230	3,100	4,950	4,760	3,930	2,510	1,600	1,460
8	1,020	1,480	6,620	1,940	3,890	3,290	4,610	5,220	3,970	2,450	1,590	1,420
9	1,020	3,350	5,010	2,490	3,670	3,170	4,880	5,200	3,930	2,400	1,570	1,420
10	1,030	1,940	4,010	4,250	3,610	3,340	5,140	5,090	4,090	2,460	1,550	1,410
11	1,020	2,000	3,690	4,010	4,170	5,280	4,590	5,330	4,170	2,340	1,540	1,400
12	1,020	3,830	3,230	3,340	4,270	7,870	4,270	6,000	3,930	2,250	1,530	1,400
13	1,010	2,300	2,990	2,920	4,450	6,270	4,110	7,260	3,830	2,200	1,530	1,370
14	1,010	1,800	2,940	2,750	4,350	5,070	4,090	6,110	3,710	2,160	1,510	1,350
15	994	1,590	3,730	6,320	4,950	4,450	4,170	5,520	3,590	2,140	1,500	1,360
16	995	1,510	6,480	11,900	4,570	4,130	4,250	5,220	3,550	2,110	1,500	1,330
17	993	1,530	4,090	31,400	4,170	3,870	4,530	4,570	3,500	2,100	1,500	1,360
18	1,010	1,450	3,190	34,000	3,910	3,510	4,720	4,190	3,610	2,050	1,500	1,330
19	1,030	1,420	2,700	21,900	3,830	3,320	4,230	4,070	3,770	2,050	1,490	1,330
20	1,100	1,360	2,510	15,900	3,440	3,320	4,350	3,930	3,730	1,990	1,470	1,330
21	1,150	1,320	2,450	10,400	3,270	3,500	4,090	3,710	3,710	1,950	1,470	1,320
22	1,230	1,330	2,280	7,970	3,250	4,470	3,810	3,690	3,670	1,910	1,500	1,320
23	1,410	2,930	2,110	6,730	3,250	9,080	3,790	3,990	3,670	1,870	1,490	1,330
24	1,810	20,500	1,980	5,870	3,290	8,830	3,610	4,370	3,480	1,840	1,460	1,330
25	1,330	14,400	1,870	5,160	3,630	8,360	3,400	4,820	4,070	1,810	1,450	1,360
26	1,310	6,850	1,830	4,630	3,320	11,400	3,500	5,560	5,010	1,780	1,440	1,570
27	1,180	9,220	1,810	4,290	3,310	8,340	3,770	5,240	4,190	1,770	1,450	1,620
28	1,130	6,070	1,950	4,070	3,250	6,620	3,910	5,300	3,590	1,760	1,460	1,540
29	1,110	4,370	3,610	3,930	-------	5,890	3,910	5,220	3,290	1,730	1,440	1,940
30	1,090	4,450	3,030	3,850	-------	5,670	3,850	4,820	3,100	1,710	1,450	1,780
31	1,110	-------	6,500	3,930	-------	5,300	-------	4,290	-------	1,690	1,510	-------
TOTAL	33,930	105,220	114,090	221,570	108,900	156,120	127,770	151,880	113,630	67,900	47,410	43,650
MEAN	1,095	3,507	3,680	7,147	3,889	5,036	4,259	4,899	3,788	2,190	1,529	1,455
MAX	1,810	20,500	7,210	34,000	4,950	11,400	5,140	7,260	5,010	3,050	1,690	1,940
MIN	945	1,090	1,810	1,920	3,250	2,850	3,400	3,690	3,100	1,690	1,440	1,320
AC-FT	67,300	208,700	226,300	439,500	216,000	309,700	253,400	301,300	225,400	134,700	94,040	86,580

CAL YR 1970 TOTAL 971,307 MEAN 2,661 MAX 22,800 MIN 945 AC-FT 1,927,000
WTR YR 1971 TOTAL 1,292,070 MEAN 3,540 MAX 34,000 MIN 945 AC-FT 2,563,000

PEAK DISCHARGE (BASE, 9,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1700	8.96	26,100	1-17	1100	10.96	38,300
11-27	1100	6.66	13,100	3-26	0300	6.48	12,300
12- 7	1500	5.54	9,420				

14341500 South Fork Little Butte Creek near Lakecreek, Oreg.

LOCATION.--Lat 42°24'30", long 122°36'00", in SE¼ sec.29, T.36 S., R.2 E., Jackson County, on left bank 0.5 mile upstream from intake of Rogue River Valley Canal, 1.4 miles southeast of Lakecreek, and at mile 18.1.

DRAINAGE AREA.--138 sq mi.

PERIOD OF RECORD.--April 1921 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,725 ft (by barometer). Supplementary nonrecording gage at site 25 ft upstream used Jan. 12 to Sept. 6, 1965. Apr. 15 to June 17, 1921, nonrecording gage, and June 18, 1921, to Sept. 6, 1965, water-stage recorder at site 75 ft upstream at datum 5.0 ft lower.

AVERAGE DISCHARGE.--50 years, 105 cfs (76,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs Jan. 17 (gage height, 6.55 ft); minimum, 7.4 cfs Oct. 15.
Period of record: Maximum discharge, 7,660 cfs Dec. 2, 1962 (gage height, 8.35 ft, site and datum then in use); minimum, 2.0 cfs Aug. 10, 1931.

REMARKS.--Records good below 60 cfs, fair above. No regulation. Diversions for irrigation above station; also, in December 1958 Dead Indian collection canal began diverting above station from Conde Creek and Dead Indian Creek and in December 1959 South Fork Little Butte collection canal began diverting above station from South Fork Little Butte Creek, Daley Creek, and Beaver Dam Creek. These are transbasin diversions to Howard Prairie Reservoir in Klamath River basin, but eventually this water is diverted back to Rogue River basin for irrigation of lands in the Ashland-Medford area and power development enroute.

REVISIONS (WATER YEARS).--WSP 934: 1925(M). WSP 1398: 1922, 1927(M), 1937, 1941-42.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	190	132	132	150	330	330	195	33	32	30
2	16	17	190	92	128	148	382	340	185	33	32	32
3	17	16	242	72	117	158	340	424	172	32	32	31
4	17	16	198	66	142	170	355	370	162	31	32	28
5	17	23	180	62	412	158	400	472	155	30	32	27
6	17	25	206	57	355	152	493	634	150	30	32	28
7	17	23	330	53	242	170	521	500	145	27	32	28
8	17	28	305	53	200	172	451	451	135	26	31	26
9	17	69	246	86	180	160	521	437	128	28	30	25
10	17	45	190	145	178	158	549	444	120	32	28	25
11	17	55	180	148	182	258	424	424	107	28	28	24
12	13	109	155	135	188	465	360	486	92	26	27	24
13	10	62	135	123	188	315	330	618	87	25	28	23
14	8.6	46	123	119	185	234	325	549	86	24	27	24
15	8.2	40	231	323	209	212	335	542	78	22	26	25
16	8.2	37	221	365	198	200	345	472	68	21	26	24
17	8.2	34	160	1,770	182	206	335	430	63	21	26	23
18	8.6	32	125	1,240	170	188	365	400	64	21	25	23
19	9.6	33	105	1,080	168	170	310	376	62	20	25	24
20	13	30	100	1,010	155	168	340	370	57	17	26	24
21	17	28	92	698	148	178	365	335	56	17	27	24
22	19	33	84	556	152	237	295	310	44	17	30	23
23	32	50	78	437	152	415	258	310	42	17	30	24
24	36	407	69	305	160	382	224	230	40	17	27	24
25	28	722	68	254	168	403	209	224	45	17	26	28
26	32	360	62	221	160	850	230	305	44	16	27	41
27	22	382	62	185	162	594	275	254	42	27	26	43
28	19	262	64	170	152	430	290	212	40	33	26	42
29	18	192	96	160	------	370	300	188	37	34	26	68
30	17	209	94	150	------	437	320	180	36	33	27	63
31	17	------	174	148	------	370	------	172	------	33	31	------
TOTAL	530.4	3,402	4,755	10,415	5,165	8,678	10,577	11,789	2,737	788	880	898
MEAN	17.1	113	153	336	184	280	353	380	91.2	25.4	28.4	29.9
MAX	36	722	330	1,770	412	850	549	634	195	34	32	68
MIN	8.2	16	62	53	117	148	209	172	36	16	25	23
AC-FT	1,050	6,750	9,430	20,660	10,240	17,210	20,980	23,380	5,430	1,560	1,750	1,780

CAL YR 1970 TOTAL 35,303.4 MEAN 96.7 MAX 1,170 MIN 8.2 AC-FT 70,020
WTR YR 1971 TOTAL 60,614.4 MEAN 166 MAX 1,770 MIN 8.2 AC-FT 120,200

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	1000	5.12	954	2- 5	2100	5.21	507
12- 3	1700	4.61	507	3-11	2200	5.32	666
12- 7	1500	4.61	507	3-26	0300	6.31	1,190
12-15	1700	4.87	706	4- 9	2000	5.60	500
1-17	0700	6.55	2,700				

14342500 North Fork Little Butte Creek at Fish Lake, near Lakecreek, Oreg.

LOCATION.--Lat 42°22'35", long 122°21'20", in SE¼SW¼ sec.4, T.37 S., R.4 E., Jackson County, on right bank 0.5 mile downstream from Fish Lake dam, 14 miles east of Lakecreek, and at mile 15.2.

DRAINAGE AREA.--20.8 sq mi.

PERIOD OF RECORD.--October 1914 to July 1915, June 1916 to current year. Monthly discharge only November 1916 to May 1917, published in WSP 1318.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,571.41 ft above mean sea level Oct. 1, 1914, to July 31, 1915, nonrecording gage at site 0.5 mile upstream at different datum. June 1, 1916, to July 9, 1918, nonrecording gage and July 10, 1918, to Oct. 28, 1932, water-stage recorder at site 0.25 mile upstream at different datums.

AVERAGE DISCHARGE.--55 years (1916-71), 35.7 cfs (25,860 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 111 cfs sometime during period May 27 to June 13 (gage height, 1.75 ft); minimum, 14 cfs Oct. 3-7.

Period of record: Maximum discharge, about 940 cfs June 5, 1917, computed from rate of change in contents of reservoir after break in dam occurred; no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Since 1915, Fish Lake (see below) has stored water for irrigation by Medford Irrigation District. Cascade Canal diverts from Fourmile Lake in Klamath River basin and discharges into lava bed 1.0 mile above Fish Lake; diversion began August 1923. No diversion from creek above station.

REVISIONS (WATER YEARS).--WSP 654: Drainage area (former site). WSP 1218: 1917(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	19	20	20	24	28	36	75	65	87	67
2	21	16	20	20	20	24	28	38	75	65	87	67
3	17	16	20	20	20	24	28	38	75	65	87	67
4	14	16	20	20	20	24	28	39	75	69	87	65
5	14	16	20	20	20	24	28	40	75	76	87	65
6	14	16	20	20	20	24	30	42	75	88	87	65
7	14	16	20	20	20	24	30	43	75	88	85	60
8	15	17	20	20	20	24	30	45	70	88	87	60
9	15	17	20	20	20	24	30	45	70	95	92	60
10	15	17	20	20	20	24	30	46	70	95	92	65
11	15	17	20	20	22	26	30	50	70	95	92	65
12	15	17	20	20	22	26	30	51	70	93	92	65
13	15	17	20	20	22	26	30	53	70	93	92	65
14	15	17	20	20	22	26	30	53	69	93	98	65
15	15	17	20	20	22	26	32	54	69	92	102	65
16	15	17	20	20	22	26	32	56	69	92	100	65
17	15	17	20	20	22	26	32	56	67	92	98	65
18	15	17	20	20	22	26	32	56	67	92	92	65
19	15	17	20	20	22	26	33	56	67	96	92	65
20	16	17	20	20	22	26	33	56	67	102	92	65
21	16	17	20	20	22	26	33	56	70	103	92	65
22	16	17	20	20	22	26	33	56	67	103	92	60
23	16	18	20	20	22	26	33	58	61	103	90	56
24	15	20	20	20	22	28	34	58	67	100	90	56
25	15	20	20	20	22	28	34	60	70	99	88	56
26	15	19	20	20	24	28	34	72	70	99	88	58
27	15	19	20	20	24	28	34	79	69	96	88	53
28	15	19	20	20	24	28	34	79	69	87	88	48
29	15	19	20	20	------	28	35	79	67	87	87	40
30	15	19	20	20	------	28	35	79	65	87	81	40
31	15	------	20	20	------	28	------	79	------	87	72	------
TOTAL	479	520	619	620	602	802	943	1,708	2,095	2,785	2,784	1,823
MEAN	15.5	17.3	20.0	20.0	21.5	25.9	31.4	55.1	69.8	89.8	89.8	60.8
MAX	21	20	20	20	24	28	35	79	75	103	102	67
MIN	14	16	19	20	20	24	28	36	61	65	72	40
AC-FT	950	1,030	1,230	1,230	1,190	1,590	1,870	3,390	4,160	5,520	5,520	3,620
(†)	4,100	4,700	5,100	5,500	6,000	6,400	6,700	8,100	8,020	6,840	5,510	5,850

CAL YR 1970 TOTAL 13,897 MEAN 38.1 MAX 109 MIN 14 AC-FT 27,560
WTR YR 1971 TOTAL 15,780 MEAN 43.2 MAX 103 MIN 14 AC-FT 31,300

† Month-end contents, in acre-feet, of Fish Lake.

NOTE.--No gage-height record Dec. 2 to Apr. 13.

14343000 North Fork Little Butte Creek near Lakecreek, Oreg.

LOCATION.--Lat 42°24'10", long 122°32'10", in NW¼ sec.36, T.36 S., R.2 E., Jackson County, on right bank 1.2 miles upstream from Wasson Canyon, 4.9 miles east of Lakecreek, and at mile 4.8.

DRAINAGE AREA.--43.8 sq mi.

PERIOD OF RECORD.--September 1911 to March 1913, July to September 1917, May 1922 to December 1964, September 1965 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "above Medford intake, near Lakecreek" 1922-28, 1931-40. Records for April to September 1916, May 1917 to September 1919, April to September 1921, and October 1923 to September 1924 at site 3 miles upstream not equivalent owing to diversions and difference in drainage areas.

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1968. Altitude of gage is 2,160 ft (from topographic map). Sept. 10, 1911, to Mar. 31, 1913, and July 1 to Sept. 30, 1917, nonrecording gage at site 1,000 ft downstream at different datums. May 26, 1922, to December 31, 1964, water-stage recorder at site 1,000 ft downstream at datum 2,125.01 ft above mean sea level.

AVERAGE DISCHARGE.--49 years (1911-12, 1922-64, 1965-71), 71.2 cfs (51,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 380 cfs Jan. 17 (gage height, 4.06 ft); minimum, 33 cfs Oct. 4, 5.
Period of record: Maximum discharge, 1,750 cfs Dec. 22, 1964 (gage height, 3.70 ft, site and datum then in use); minmmum, 11 cfs Oct. 29 to Nov. 8, 1931.

REMARKS.--Records good. Flow partly regulated since 1915 by Fish Lake (published with station 14342500). Diversions for irrigation above station; some water diverted into Fish Lake from Fourmile Lake, in Klamath River basin, since 1923.

REVISIONS (WATER YEARS).--WSP 1518: 1912-13. WSP 1738: Drainage area (former site).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	35	60	55	60	64	99	99	165	96	108	91
2	40	35	60	49	59	61	96	101	148	94	108	92
3	38	35	74	47	58	65	95	104	142	94	108	91
4	33	35	60	44	67	65	96	104	136	96	108	81
5	33	37	59	44	106	64	100	104	132	99	108	80
6	34	36	61	43	89	64	102	102	126	113	108	81
7	34	36	89	43	78	74	105	104	122	111	108	80
8	34	44	81	46	74	71	100	106	117	111	108	80
9	34	48	70	54	71	68	105	108	109	120	115	80
10	34	39	61	61	71	74	110	113	111	119	113	86
11	34	47	60	59	70	92	105	117	109	117	113	88
12	34	60	56	55	68	108	100	122	108	117	113	86
13	34	43	54	52	67	96	95	124	108	115	113	86
14	34	40	54	52	67	88	91	119	104	117	117	86
15	34	39	64	81	71	83	91	119	102	117	122	86
16	34	38	67	109	65	81	94	117	101	117	122	86
17	34	38	56	276	64	80	104	113	99	117	119	86
18	35	38	52	215	64	75	113	113	99	115	113	84
19	35	38	50	158	65	75	106	111	99	119	111	84
20	37	37	49	155	63	77	108	111	97	126	111	84
21	37	37	49	117	61	78	113	109	101	124	111	84
22	36	40	48	101	67	104	111	108	97	124	113	83
23	44	46	47	92	68	152	111	108	92	124	111	77
24	39	108	46	86	70	155	106	108	94	122	111	77
25	41	134	44	78	72	144	102	111	101	122	111	80
26	38	77	44	72	68	150	99	128	106	122	111	83
27	36	91	43	68	67	126	99	128	101	120	109	78
28	36	70	46	67	67	115	101	132	97	109	109	75
29	35	60	48	64	------	108	101	136	96	109	109	74
30	35	65	49	61	------	109	99	146	96	109	108	68
31	35	------	70	61	------	106	------	152	------	109	99	------
TOTAL	1,111	1,526	1,771	2,565	1,937	2,872	3,057	3,577	3,315	3,524	3,448	2,477
MEAN	35.8	50.9	57.1	82.7	69.2	92.6	102	115	111	114	111	82.6
MAX	44	134	89	276	106	155	113	152	165	126	122	92
MIN	33	35	43	43	58	61	91	99	92	94	99	68
AC-FT	2,200	3,030	3,510	5,090	3,840	5,700	6,060	7,090	6,580	6,990	6,840	4,910

CAL YR 1970 TOTAL 24,270 MEAN 66.5 MAX 136 MIN 33 AC-FT 48,140
WTR YR 1971 TOTAL 31,180 MEAN 85.4 MAX 276 MIN 33 AC-FT 61,850

14350000 Emigrant Creek near Ashland, Oreg.

LOCATION.--Lat 43°09'50", long 122°36'15", in SE¼NE¼ sec.20, T.39 S., R.2 E., Jackson County, on left bank 0.1 mile downstream from Emigrant Dam, 6 miles southeast of Ashland, and at mile 29.2.

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--January to June 1920, October 1920 to July 1922, February 1923 to May 1924 (incomplete), October 1924 to November 1925, February to August 1926, October 1926 to September 1928, April 1929 to September 1930, April 1931 to October 1932 (incomplete) April 1933 to September 1935, April 1936 to September 1939 (incomplete), April 1940 to September 1947, January 1948 to October 1952 (incomplete), December 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 2,042.80 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1926, water-stage recorder or nonrecording gage at several nearby sites at various datums. Oct. 1,,1926, to Feb. 24, 1959, water-stage recorder near present site at datum 10.93 ft higher. Feb. 25, 1959, to May 7, 1961, water-stage recorder at site 1.0 mile downstream at different datum.

AVERAGE DISCHARGE.--31 years (1924-25, 1926-28, 1929-30, 1933-35, 1940-47, 1953-71) 30.8 cfs (22,310 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 432 cfs Mar. 27 (gage height, 3.61 ft); no flow at times.
Period of record: Maximum discharge, 5,260 cfs Feb. 20, 1927, by computation of peak flow over dam; no flow at times.

REMARKS.--Records fair. Flow regulated since 1924 by Emigrant Lake (see below). Several diversions above station for irrigation; the principal diversion canals are Ashland lateral and East lateral (see below). From June 1923 to August 1960, water diverted by Keene Creek Canal from Klamath River basin into Emigrant Creek above station. Beginning May 1960, water from Klamath River basin diverted to Emigrant Creek above station via Green Springs powerplant diversion.

REVISIONS (WATER YEARS).--WSP 1448: 1921, 1927-28, 1937, 1953(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	.20	.30	144	72	45	296	266	28	52	63	54
2	18	.20	.40	144	72	44	222	266	29	51	63	54
3	.20	.20	.40	144	53	.30	128	266	30	50	63	53
4	.20	.20	.40	63	42	.30	128	266	31	49	63	53
5	.20	.30	.30	.30	104	.30	129	267	31	49	68	53
6	.20	.30	.30	.30	150	.20	130	208	32	48	74	53
7	.20	.30	.40	.30	150	.20	130	158	33	48	74	53
8	.20	.30	.40	.30	66	.30	130	159	34	48	73	53
9	.20	.30	.40	.30	.30	.40	208	160	36	46	73	41
10	.20	.30	.30	.30	.30	.40	274	160	39	49	73	32
11	.20	.30	.40	.30	.30	.40	272	160	39	49	73	32
12	.20	.30	.30	.30	80	.40	340	162	40	48	73	32
13	.20	.30	.30	.30	148	.40	255	164	40	48	75	31
14	.20	.20	83	.30	147	.40	89	165	40	46	86	31
15	.20	.20	147	66	114	.40	267	165	40	45	86	31
16	.20	.30	147	174	69	.40	267	165	41	45	84	31
17	.20	.30	147	64	69	.40	267	166	41	55	84	31
18	.20	.30	147	.40	69	.40	267	168	43	66	84	31
19	.20	.30	147	.40	69	.40	200	168	43	65	84	31
20	.20	.30	146	163	69	.40	128	170	43	65	81	31
21	.20	.30	146	294	69	.40	128	124	43	65	77	31
22	.20	.30	146	292	70	.40	129	68	46	64	75	31
23	.20	.30	144	292	70	.40	129	68	51	65	68	31
24	.20	.40	144	290	70	.40	129	42	51	64	60	31
25	.20	.40	144	288	70	64	130	21	51	64	60	31
26	.20	.30	144	288	48	204	204	22	51	64	60	30
27	.20	.40	144	224	29	384	266	23	51	64	60	30
28	.20	.40	144	150	29	430	266	24	50	64	60	30
29	.20	.30	144	108	------	428	266	25	49	64	60	11
30	.20	.40	144	72	------	362	266	26	51	63	57	0
31	.20	------	144	72	------	296	------	27	------	63	54	------
TOTAL	48.80	8.90	2,556.60	3,335.80	1,998.90	2,265.00	6,040	4,299	1,227	1,726	2,188	1,067
MEAN	1.57	.30	82.5	108	71.4	73.1	201	139	40.9	55.7	70.6	35.6
MAX	25	.40	147	294	150	430	340	267	51	66	86	54
MIN	.20	.20	.30	.30	.30	.20	89	21	28	45	54	0
AC-FT	97	18	5,070	6,620	3,960	4,490	11,980	8,530	2,430	3,420	4,340	2,120
(†)	8,600	13,600	17,700	24,620	28,200	38,060	38,920	36,400	33,380	24,000	13,300	7,480
(‡)	268	0	0	0	0	0	1,680	4,300	6,720	8,840	8,700	6,060

CAL YR 1970 TOTAL 20,845.40 MEAN 57.1 MAX 602 MIN .10 AC-FT 41,350
WTR YR 1971 TOTAL 26,761.00 MEAN 73.3 MAX 430 MIN 0 AC-FT 53,080

† Month-end contents in acre-feet, of Emigrant Lake.
‡ Diversion, in acre-feet, by East lateral.

14357500 Bear Creek at Medford, Oreg.

LOCATION.--Lat 42°19'40", long 122°52'10", in NW¼ sec.30, T.37 S., R.1 W., Jackson County, on left bank 40 ft upstream from Main Street Bridge in Medford, and at mile 9.91.

DRAINAGE AREA.--289 sq mi.

PERIOD OF RECORD.--March 1915 to June 1920 (no low-flow records), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,343.98 ft above mean sea level. See WSP 1738 for history of changes prior to Dec. 31, 1947.

AVERAGE DISCHARGE.--51 years (1920-71), 112 cfs (81,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,150 cfs Jan. 17 (gage height, 5.00 ft); minimum, 20 cfs Oct. 13-18.
Period of record: Maximum discharge, 14,500 cfs Dec. 2, 1962 (gage height, 8.04 ft); maximum gage height, about 11.0 ft Feb. 20, 1927, from floodmarks, present datum, site then in use; no flow at times.

REMARKS.--Records fair except those for October, July and August, which are poor. Flow partly regulated since 1924 by Emigrant Lake (published with station 14350000). Numerous diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1044: 1944. WSP 1448: 1916, 1917(M), 1918-20, 1922, 1924, 1927(M), 1928, 1930. WSP 1568: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	30	226	312	276	202	578	500	312	142	91	122
2	40	30	256	264	268	226	530	500	256	148	97	128
3	30	30	558	236	244	175	410	572	222	128	102	128
4	30	28	324	212	276	178	405	554	196	115	104	115
5	30	40	256	104	737	166	400	560	184	113	102	97
6	30	47	296	93	566	154	380	494	178	113	99	106
7	30	43	506	91	426	157	400	405	169	104	102	104
8	30	81	390	89	352	169	370	442	163	87	106	97
9	30	160	268	118	230	160	454	415	148	75	113	89
10	30	89	199	184	222	151	554	400	154	79	113	73
11	30	104	205	151	222	211	512	390	145	93	108	73
12	25	148	172	132	256	500	512	400	138	104	93	81
13	20	87	154	113	360	342	567	426	148	97	81	75
14	20	73	163	115	356	260	240	400	160	85	79	65
15	20	61	531	841	360	233	459	385	148	79	87	67
16	20	59	632	1,210	280	288	488	375	142	75	89	65
17	20	57	400	2,560	268	352	506	352	145	69	93	63
18	20	55	338	1,270	268	292	530	329	154	73	97	65
19	25	54	308	824	272	244	494	308	154	89	97	59
20	30	52	292	896	248	233	464	308	154	91	99	65
21	37	50	268	772	244	230	482	308	160	91	104	61
22	43	60	264	674	256	312	488	212	135	93	106	57
23	81	100	276	611	264	604	459	199	120	93	118	52
24	67	250	256	578	264	488	442	193	122	93	102	54
25	47	590	233	542	268	454	410	160	172	93	87	63
26	48	222	233	518	240	1,170	454	233	248	93	91	97
27	37	450	233	476	216	896	554	190	208	89	102	104
28	32	268	248	370	208	856	530	190	196	89	102	125
29	31	169	380	329	-------	786	524	199	169	89	102	233
30	31	266	292	284	-------	737	518	208	148	87	111	166
31	30	-------	370	284	-------	618	-------	226	-------	89	130	-------
TOTAL	1,044	3,753	9,527	15,253	8,447	11,844	14,114	10,833	5,148	2,958	3,107	2,749
MEAN	33.7	125	307	492	302	382	470	349	172	95.4	100	91.6
MAX	81	590	632	2,560	737	1,170	578	572	312	148	130	233
MIN	20	28	154	89	208	151	240	160	120	69	79	52
AC-FT	2,070	7,440	18,900	30,250	16,750	23,490	28,000	21,490	10,210	5,870	6,160	5,450

CAL YR 1970 TOTAL 63,962 MEAN 175 MAX 2,140 MIN 20 AC-FT 126,900
WTR YR 1971 TOTAL 88,777 MEAN 243 MAX 2,560 MIN 20 AC-FT 176,100

14359000 Rogue River at Raygold, near Central Point, Oreg.

LOCATION.--Lat 42°26'15", long 122°59'10", in SW¼ sec.18, T.36 S., R.2 W., Jackson County, on right bank at Raygold, 0.1 mile downstream from Gold Ray Dam, 1.0 mile downstream from Bear Creek, 5.6 miles northwest of Central Point, and at mile 125.8.

DRAINAGE AREA.--2,053 sq mi.

PERIOD OF RECORD.--August 1905 to current year. Prior to October 1921, published as "near Tolo."

GAGE.--Water-stage recorder. Datum of gage is 1,121.78 ft above mean sea level. Prior to Sept. 19, 1914, nonrecording gage and Sept. 19, 1914, to Sept. 30, 1956, water-stage recorder, at site 300 ft upstream at same datum.

AVERAGE DISCHARGE.--66 years, 2,942 cfs (2,131,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 60,900 cfs Jan. 17 (gage height, 15.59 ft); minimum, 550 cfs Nov. 15; minimum daily, 1,090 cfs Oct. 16, 17.

Period of record: Maximum discharge, 131,000 cfs Dec. 23, 1964 (gage height, 23.43 ft), from rating curve extended above 63,000 cfs on basis of slope-area measurement of 113,000 cfs; minimum not determined; minimum daily, 616 cfs Sept. 6, 1931.

Flood in December 1861 reached a stage of about 32 ft (discharge not determined), and flood in February 1890 reached a stage of about 27.5 ft (discharge not determined), from information by Corps of Engineers.

REMARKS.--Records excellent. Diurnal fluctuation caused by powerplant 0.1 mile above station. Slight regulation by Fish Lake (published with station 14342500) and Emigrant Lake (published with station 14350000). Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1248: 1906, 1914(M), 1915. WSP 1398: 1910(M), 1927(M). WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,110	1,250	6,240	5,960	5,400	4,160	6,440	5,520	5,130	3,310	1,810	1,830
2	1,120	1,230	6,130	4,320	5,180	3,900	6,030	5,690	4,700	3,230	1,790	1,900
3	1,140	1,240	8,190	3,340	4,920	4,160	5,670	6,390	4,430	3,110	1,770	1,900
4	1,110	1,240	7,230	3,000	5,180	4,660	5,580	6,810	4,290	3,030	1,730	1,810
5	1,110	1,340	5,000	2,650	8,050	4,230	5,760	6,770	4,200	2,940	1,720	1,700
6	1,130	1,610	5,700	2,520	7,190	3,830	6,110	6,290	4,300	2,820	1,700	1,710
7	1,140	1,490	8,660	2,460	6,010	4,010	6,370	6,140	4,430	2,690	1,710	1,690
8	1,140	1,770	8,970	2,430	5,410	4,280	5,900	6,610	4,420	2,600	1,720	1,640
9	1,140	4,260	6,740	3,050	4,840	4,120	6,140	6,580	4,320	2,540	1,700	1,580
10	1,150	2,560	5,310	5,160	4,840	4,010	7,170	6,400	4,480	2,680	1,640	1,580
11	1,140	2,420	4,880	5,250	5,200	6,170	6,150	6,560	4,680	2,580	1,640	1,540
12	1,140	4,960	4,300	4,490	5,280	10,600	5,660	7,170	4,340	2,480	1,580	1,540
13	1,120	2,960	3,920	3,890	5,560	8,650	5,510	8,670	4,230	2,390	1,570	1,540
14	1,120	2,250	3,800	3,640	5,440	6,620	5,120	7,520	4,170	2,300	1,570	1,530
15	1,100	1,930	4,910	8,420	6,110	5,850	5,350	6,800	3,940	2,280	1,580	1,560
16	1,090	1,860	10,500	17,000	5,700	5,610	5,440	6,450	3,860	2,230	1,600	1,510
17	1,090	1,840	6,210	46,500	5,230	5,780	5,860	5,750	3,790	2,190	1,580	1,480
18	1,100	1,720	4,690	45,400	4,920	5,160	6,510	5,210	3,880	2,180	1,590	1,500
19	1,140	1,700	3,890	28,200	5,050	4,590	5,730	4,970	4,210	2,240	1,570	1,460
20	1,200	1,630	3,530	21,000	4,480	4,430	5,930	4,790	4,050	2,140	1,580	1,470
21	1,270	1,580	3,430	14,100	4,220	4,520	5,990	4,610	4,050	2,080	1,600	1,490
22	1,420	1,570	3,180	10,900	4,190	5,270	5,530	4,410	3,940	2,060	1,650	1,470
23	1,560	2,910	2,950	9,210	4,380	12,000	5,400	4,600	3,920	2,040	1,670	1,460
24	2,250	21,100	2,740	8,200	4,210	11,800	5,190	4,920	3,750	1,960	1,600	1,470
25	1,630	20,800	2,560	7,290	4,790	10,800	4,820	5,300	4,150	1,930	1,580	1,510
26	1,610	9,420	2,480	6,620	4,410	16,900	4,810	6,290	5,770	1,920	1,560	1,790
27	1,380	12,300	2,450	6,140	4,400	11,700	5,170	5,970	4,910	1,890	1,600	1,960
28	1,310	9,610	2,510	5,680	4,430	9,220	5,330	5,960	4,150	1,850	1,630	1,840
29	1,270	6,050	5,460	5,480	------	8,060	5,340	5,930	3,690	1,820	1,660	2,590
30	1,220	5,840	4,540	5,300	------	7,630	5,310	5,540	3,460	1,800	1,660	2,390
31	1,290	------	8,480	5,320	------	7,100	------	5,070	------	1,800	1,820	------
TOTAL	38,740	132,440	159,580	302,920	145,020	209,820	171,320	185,690	127,640	73,110	51,180	50,440
MEAN	1,250	4,415	5,148	9,772	5,179	6,768	5,711	5,990	4,255	2,358	1,651	1,681
MAX	2,250	21,100	10,500	46,500	8,050	16,900	7,170	8,670	5,770	3,310	1,820	2,590
MIN	1,090	1,230	2,450	2,430	4,190	3,830	4,810	4,410	3,460	1,800	1,560	1,460
AC-FT	76,840	262,700	316,500	600,800	287,600	416,200	339,800	368,300	253,200	145,000	101,500	100,000

CAL YR 1970 TOTAL 1,209,960 MEAN 3,315 MAX 32,100 MIN 1,050 AC-FT 2,400,000
WTR YR 1971 TOTAL 1,647,900 MEAN 4,515 MAX 46,500 MIN 1,090 AC-FT 3,269,000

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1900	10.75	30,000	12-31	1130	6.04	11,200
11-27	1530	7.81	17,000	1-17	1500	15.59	60,900
12- 3	2100	7.09	14,500	3-12	0430	6.08	11,300
12- 7	1900	6.49	12,600	3-26	0630	8.39	19,300
12-16	0530	6.57	12,800				

14361500 Rogue River at Grants Pass, Oreg.

LOCATION.--Lat 42°25'50", long 123°19'00", in NW¼ sec.20, T.36 S., R.5 W., Josephine County, on right bank at city of Grants Pass filter plant, 0.6 mile upstream from bridge on U.S. Highway 99 at Grants Pass, and at mile 101.8.

DRAINAGE AREA.--2,459 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 885.28 ft above mean sea level. Prior to Aug. 8, 1957, at datum 3.00 ft higher.

AVERAGE DISCHARGE.--33 years, 3,472 cfs (2,515,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 87,100 cfs Jan. 17 (gage height, 24.19 ft); minimum, 916 cfs, Oct. 15; minimum daily, 1,020 cfs Oct. 5.

Period of record: Maximum discharge, 152,000 cfs Dec. 23, 1964 (gage height, 34.15 ft), from rating curve extended above 93,000 cfs; minimum, 195 cfs Jan. 30, 1961; minimum daily, 606 cfs Sept. 10, 1968.

Flood in December 1861 reached a stage of about 42 ft, present datum (information furnished by Corps of Engineers). Flood in February 1890 reached a stage of about 35 ft, present datum, and that of Feb. 21, 1927, about 31 ft, present datum, according to local resident.

REMARKS.--Records good. Large diurnal fluctuation at times caused by Savage Rapids Dam and by powerplant at Raygold; slight regulation by Fish Lake and Emigrant Lake. Many diversions from Rogue River and tributaries above station, the largest of which is at Savage Rapids Dam of Grants Pass Irrigation District, 5 miles above station.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,040	1,370	8,220	8,730	5,740	4,870	8,020	6,060	5,330	3,330	1,640	1,700
2	1,070	1,370	7,830	5,900	5,640	4,580	7,330	6,250	4,910	3,240	1,630	1,760
3	1,080	1,370	10,900	4,480	5,320	4,710	6,860	7,010	4,600	3,130	1,590	1,790
4	1,040	1,360	11,500	3,890	5,300	5,490	6,660	7,520	4,410	3,030	1,570	1,710
5	1,020	1,470	6,680	3,440	9,020	5,090	6,790	7,540	4,340	2,970	1,520	1,580
6	1,080	1,770	7,680	3,180	9,090	4,650	7,040	7,010	4,360	2,760	1,510	1,550
7	1,080	1,710	12,400	3,060	7,170	4,730	7,390	6,680	4,470	2,680	1,530	1,560
8	1,100	1,930	13,100	2,960	6,320	5,230	6,870	7,060	4,950	2,590	1,530	1,490
9	1,110	4,520	8,990	3,410	5,700	5,060	6,850	7,230	4,720	2,540	1,510	1,430
10	1,140	3,180	6,600	5,760	5,530	4,920	8,850	6,940	4,620	2,640	1,470	1,450
11	1,130	2,580	5,800	6,380	5,900	7,820	7,330	6,440	4,440	2,570	1,450	1,420
12	1,530	5,230	5,130	5,390	5,960	14,800	6,650	7,590	4,350	2,470	1,410	1,410
13	1,520	3,650	4,600	4,640	6,240	12,300	6,390	9,320	4,290	2,340	1,390	1,400
14	1,260	2,630	4,390	4,440	6,160	8,950	6,000	8,230	4,260	2,260	1,390	1,380
15	1,190	2,200	5,220	11,000	6,880	7,600	6,060	7,260	4,040	2,200	1,400	1,390
16	1,190	2,050	15,100	27,000	6,520	7,070	6,190	6,850	3,920	2,230	1,410	1,400
17	1,190	2,020	8,740	69,500	5,940	7,340	6,680	6,170	3,850	2,150	1,410	1,350
18	1,190	1,910	6,030	61,300	5,510	6,670	7,740	5,420	3,870	2,050	1,410	1,390
19	1,230	1,860	4,880	37,700	5,720	5,840	6,790	5,160	4,210	2,150	1,400	1,340
20	1,310	1,790	4,320	26,700	5,130	5,570	6,710	4,990	4,050	2,080	1,400	1,350
21	1,460	1,720	4,150	18,200	4,820	5,590	7,090	4,810	4,040	1,970	1,420	1,350
22	1,560	1,710	3,820	13,500	4,740	6,080	6,350	4,580	3,920	2,030	1,470	1,350
23	1,690	2,720	3,520	11,000	5,000	14,800	6,210	4,680	3,870	1,920	1,560	1,350
24	2,630	25,000	3,260	9,560	4,760	15,300	6,050	4,980	3,760	1,840	1,440	1,350
25	1,950	27,000	3,030	8,240	5,400	13,800	5,600	5,350	3,830	1,770	1,430	1,390
26	1,840	12,200	2,920	7,290	5,070	24,100	5,500	6,410	5,860	1,760	1,410	1,620
27	1,590	14,900	2,850	6,680	5,070	16,900	5,820	6,390	5,150	1,730	1,450	1,960
28	1,480	13,500	3,120	6,210	5,170	12,600	6,000	6,190	4,260	1,690	1,500	1,810
29	1,420	7,060	7,520	5,930	------	10,600	5,990	6,170	3,760	1,670	1,480	2,610
30	1,360	6,660	6,300	5,690	------	9,810	5,930	5,820	3,410	1,620	1,490	3,190
31	1,420	------	12,200	5,640	------	9,020	------	5,310	------	1,630	1,640	------
TOTAL	41,900	158,440	210,800	396,800	164,820	271,890	199,740	197,420	129,850	71,040	45,860	47,830
MEAN	1,352	5,281	6,800	12,800	5,886	8,771	6,658	6,368	4,328	2,292	1,479	1,594
MAX	2,630	27,000	15,100	69,500	9,090	24,100	8,850	9,320	5,860	3,330	1,640	3,190
MIN	1,020	1,360	2,850	2,960	4,740	4,580	5,500	4,580	3,410	1,620	1,390	1,340
AC-FT	83,110	314,300	418,100	787,100	326,900	539,300	396,200	391,600	257,600	140,900	90,960	94,870

CAL YR 1970 TOTAL 1,426,747 MEAN 3,909 MAX 45,600 MIN 900 AC-FT 2,830,000
WTR YR 1971 TOTAL 1,936,390 MEAN 5,305 MAX 69,500 MIN 1,020 AC-FT 3,841,000

PEAK DISCHARGE (BASE, 13,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	2200	14.12	35,700	12-31	1330	8.61	16,300
11-27	1900	10.66	22,600	1-17	1630	24.19	87,100
12- 3	2300	9.95	20,200	3-12	0700	8.53	16,100
12- 7	2200	9.24	18,100	3-26	0730	11.84	26,800
12-16	0900	9.23	18,100				

14362000 Applegate River near Copper, Oreg.

LOCATION.--Lat 42°03'30", long 123°06'50", in SE¼ sec.25, T.40 S., R.4 W., Jackson County, on right bank 0.2 mile downstream from French Gulch, 1.2 miles downstream from Squaw Creek, 2.6 miles northeast of Copper, and at mile 46.3.

DRAINAGE AREA.--223 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,759.66 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 446 cfs (323,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,500 cfs Jan. 17 (gage height, 14.29 ft); minimum, 38 cfs Oct. 1-5.
Period of record: Maximum discharge, 29,000 cfs Dec. 22, 1964 (gage height, 26.00 ft, from floodmark), from rating curve extended above 11,500 cfs on basis of three slope-area measurements of peak flows made in 1950, 1955, and 1964; minimum, 20 cfs Sept. 23-25, 1939.

REMARKS.--Records good. Some storage during winter in Squaw Lakes Reservoir (capacity, 1,100 acre-ft) on Squaw Creek above station. Diversions for irrigation above station in Applegate River basin; Grand Applegate ditch diverts around station on left bank; also diversions above station for irrigation into Thompson Creek basin.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	70	683	702	945	459	1,060	892	832	427	117	77
2	38	70	610	591	910	448	980	952	768	409	116	82
3	38	69	941	518	850	455	931	1,390	774	386	112	80
4	38	72	798	470	802	445	917	1,480	826	360	106	74
5	38	232	825	430	838	420	980	1,460	886	342	104	71
6	40	257	1,210	400	820	406	1,060	1,270	959	324	101	73
7	41	181	3,460	380	768	413	1,000	1,320	987	307	99	74
8	42	904	2,090	370	724	396	952	1,830	966	292	96	73
9	42	1,120	1,350	370	686	386	1,220	1,740	931	284	92	68
10	41	431	1,060	470	779	423	1,160	1,650	910	270	91	63
11	41	602	907	480	892	752	994	1,780	892	257	89	60
12	41	693	792	460	1,040	1,180	904	1,970	850	246	86	66
13	41	410	714	440	1,160	880	886	1,830	832	235	86	59
14	40	299	645	440	1,100	768	898	1,520	790	220	85	55
15	41	246	771	1,700	1,310	675	924	1,410	763	217	85	54
16	40	238	952	3,430	1,070	649	931	1,230	768	210	83	52
17	40	205	805	8,640	924	591	874	1,060	752	202	82	51
18	45	178	706	7,150	838	560	802	1,000	785	200	80	51
19	47	162	623	4,800	757	556	757	1,020	774	192	77	51
20	75	149	591	3,580	697	573	757	1,010	735	182	77	51
21	88	139	541	2,510	655	606	708	898	697	185	77	51
22	98	171	486	1,950	624	966	680	898	680	185	77	52
23	225	1,250	448	1,610	587	2,080	655	1,110	639	166	79	52
24	159	4,470	415	1,380	582	1,870	624	1,300	578	161	74	52
25	96	3,050	396	1,180	556	1,960	606	1,310	719	153	71	54
26	88	1,380	378	1,050	518	3,640	624	1,250	713	146	70	68
27	76	1,210	364	959	513	2,180	697	1,180	578	142	68	71
28	72	953	464	904	486	1,710	768	1,320	505	138	68	73
29	69	773	563	874	------	1,460	796	1,300	467	129	67	140
30	67	742	570	880	------	1,340	820	1,130	441	125	67	112
31	67	------	807	917	------	1,180	------	931	------	119	77	------
TOTAL	1,952	20,726	25,965	50,035	22,431	30,427	25,965	40,441	22,797	7,211	2,659	2,010
MEAN	63.0	691	838	1,614	801	982	866	1,305	760	233	85.8	67.0
MAX	225	4,470	3,460	8,640	1,310	3,640	1,220	1,970	987	427	117	140
MIN	38	69	364	370	486	386	606	892	441	119	67	51
AC-FT	3,870	41,110	51,500	99,240	44,490	60,350	51,500	80,210	45,220	14,300	5,270	3,990

CAL YR 1970 TOTAL 209,882 MEAN 575 MAX 9,130 MIN 38 AC-FT 416,300
WTR YR 1971 TOTAL 252,619 MEAN 692 MAX 8,640 MIN 38 AC-FT 501,100

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11- 8	1900	4.92	2,070	3-23	2100	5.26	2,280
11-24	1330	9.60	5,800	3-26	0130	8.80	5,020
12- 7	1030	9.05	5,310	5-12	2330	5.05	2,140
1-17	1730	14.29	10,500				

14366000 Applegate River near Applegate, Oreg.

LOCATION.--Lat 43°14'30", long 123°08'20", in NE¼ sec.26, T.38 S., R.4 W., Jackson County, on left bank 0.9 mile downstream from Keeler Creek, 1.8 miles southeast of Applegate, and at mile 26.7.

DRAINAGE AREA.--483 sq mi.

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,285.33 ft above mean sea level. Prior to Dec. 23, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 551 cfs (399,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Jan. 17 (gage height, 12.18 ft); minimum, 18 cfs Oct. 1.

Period of record: Maximum discharge 45,700 cfs Dec. 22, 1964 (gage height, 19.57 ft), from rating curve extended above 18,000 cfs on basis of average of slope-area measurements of flow at gage heights 18.00 ft and 19.57 ft; minimum, 7.0 cfs Sept. 18, 1945, Aug. 28, 1951, Sept. 15, 1960.

Flood of Feb. 20, 1927, reached a stage of 18.7 ft, from floodmarks.

REMARKS.--Records good. No appreciable regulation. Many diversions for irrigation above station. McDonald Creek Canal diverts from McDonald Creek above station for irrigation in Bear Creek basin. Thompson Creek Irrigation Association ditch diverts above station for irrigation into Thompson Creek basin. Fowler-Keeler and Berryman ditches divert above station for irrigation below.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	93	847	995	1,180	615	1,490	1,130	1,070	511	110	61
2	20	94	787	828	1,150	594	1,370	1,170	978	492	107	63
3	21	93	1,510	711	1,070	607	1,290	1,620	957	454	109	62
4	21	91	1,360	649	1,020	606	1,250	1,790	1,000	421	100	57
5	23	224	1,050	592	1,090	580	1,280	1,830	1,060	405	91	55
6	23	318	1,510	554	1,090	559	1,360	1,600	1,130	377	84	55
7	26	241	3,720	524	1,010	565	1,310	1,630	1,180	359	82	63
8	25	675	2,760	503	948	555	1,220	2,310	1,150	340	85	61
9	29	1,360	1,810	514	895	544	1,500	2,180	1,140	322	81	56
10	30	510	1,360	647	949	550	1,530	2,040	1,100	311	69	54
11	30	535	1,160	665	1,100	779	1,320	2,150	1,090	296	61	48
12	34	774	1,010	637	1,220	1,690	1,190	2,380	1,050	279	58	49
13	32	474	903	604	1,380	1,380	1,160	2,270	1,000	263	54	53
14	34	362	808	601	1,280	1,180	1,170	1,890	969	242	53	46
15	38	311	912	2,200	1,530	1,040	1,180	1,760	919	235	55	42
16	37	287	1,480	4,750	1,290	1,010	1,180	1,570	921	220	63	41
17	36	261	1,200	12,800	1,130	933	1,150	1,350	893	216	53	40
18	40	232	998	10,400	1,030	908	1,050	1,250	914	220	56	37
19	41	214	854	6,530	945	901	983	1,260	906	215	57	32
20	52	199	790	4,820	867	922	996	1,250	877	196	52	34
21	90	187	728	3,340	822	961	940	1,130	828	192	55	35
22	152	193	651	2,590	784	1,140	906	1,070	811	209	57	33
23	209	880	596	2,150	755	2,530	885	1,270	773	177	58	32
24	274	4,300	550	1,840	735	2,440	856	1,490	709	168	55	31
25	149	3,370	525	1,590	724	2,220	831	1,570	790	158	51	37
26	129	1,720	502	1,410	673	4,930	845	1,520	848	143	46	59
27	110	1,450	485	1,290	676	3,180	911	1,400	710	138	46	85
28	103	1,230	535	1,200	649	2,450	995	1,550	633	132	48	87
29	97	914	831	1,150	------	2,070	1,030	1,570	582	126	53	170
30	94	882	778	1,140	------	1,900	1,040	1,410	536	119	51	185
31	92	------	1,060	1,160	------	1,660	------	1,180	------	114	63	------
TOTAL	2,110	22,474	34,070	69,384	27,992	41,999	34,218	49,590	27,524	8,050	2,063	1,763
MEAN	68.1	749	1,099	2,238	1,000	1,355	1,141	1,600	917	260	66.5	58.8
MAX	274	4,300	3,720	12,800	1,530	4,930	1,530	2,380	1,180	511	110	185
MIN	19	91	485	503	649	544	831	1,070	536	114	46	31
AC-FT	4,190	44,580	67,580	137,600	55,520	83,310	67,870	98,360	54,590	15,970	4,090	3,500

CAL YR 1970 TOTAL 255,964 MEAN 701 MAX 10,900 MIN 16 AC-FT 507,700
WTR YR 1971 TOTAL 321,237 MEAN 880 MAX 12,800 MIN 19 AC-FT 637,200

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1700	7.24	5,630	1-17	2000	12.18	14,600
12- 3	1730	5.07	2,660	3-26	0500	7.69	6,320
12- 7	1400	7.16	5,510	5-13	0130	5.00	2,580

14371500 Grave Creek at Pease Bridge, near Placer, Oreg.

LOCATION.--Lat 42°38'30", long 123°12'40", in SE¼ sec.6, T.34 S., R.4 W., Josephine County, on right bank 0.5 mile downstream from Pease Bridge, 0.5 mile upstream from Boulder Creek, 5.4 miles east of Placer, and at mile 27.1.

DRAINAGE AREA.--22.1 sq mi at measuring site 0.5 mile upstream.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1945 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 2,354.2 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Aug. 4, 1955, at sites 0.5 mile upstream at datum 29.9 ft higher.

AVERAGE DISCHARGE.--26 years (1945-71), 60.2 cfs (36.99 inches per year, 43,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,420 cfs Jan. 17 (gage height, 7.28 ft); minimum, 0.62 cfs Oct. 5.
Period of record: Maximum discharge, 6,240 cfs Dec. 22, 1964 (gage height, 11.20 ft), from rating curve extended above 1,200 cfs on basis of slope-area measurement at gage height, 9.66 ft; minimum, 0.12 cfs July 15, 1970.

REMARKS.--Records good. No regulation. One small diversion above station. Prior to 1945, Columbia upper ditch diverted water about 2 miles above station, bypassing station. All records given herein are for measuring site.

REVISIONS.--WSP 1738: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	3.1	107	195	165	57	137	121	39	9.4	1.9	1.8
2	.76	2.9	84	133	158	51	133	121	39	8.8	1.8	2.1
3	.76	2.8	76	97	129	58	133	137	34	8.5	1.6	1.9
4	.69	2.7	63	76	115	61	139	125	31	7.9	1.6	1.6
5	.69	14	114	62	215	54	154	106	32	7.6	1.6	1.4
6	.76	15	317	53	230	50	156	90	28	7.4	1.6	1.3
7	.83	11	719	47	182	52	131	95	26	6.9	1.6	1.5
8	1.0	64	367	45	150	57	111	98	24	6.6	1.5	1.4
9	1.1	82	230	59	129	61	131	86	22	6.6	1.3	1.3
10	1.1	30	165	200	156	86	123	75	21	6.9	1.2	1.1
11	1.1	80	150	171	185	270	111	75	20	6.6	1.1	1.0
12	1.0	135	123	130	196	365	111	75	18	6.1	1.0	.95
13	.99	54	97	103	185	215	123	63	17	5.6	1.1	.90
14	.97	32	81	88	178	162	131	54	16	5.4	1.1	.85
15	.96	23	135	434	203	133	129	49	15	5.2	1.1	.95
16	.92	20	202	599	156	113	119	45	14	4.6	1.1	.85
17	.90	18	127	1,840	123	95	111	39	13	4.4	1.1	.80
18	1.1	15	89	1,160	102	88	108	36	16	4.2	1.0	.75
19	1.5	14	66	712	86	93	108	34	14	4.4	1.0	.75
20	2.7	13	57	495	72	113	125	34	12	3.6	1.0	.75
21	5.2	12	49	286	65	141	106	33	12	3.3	1.0	.75
22	6.6	17	40	201	65	273	96	31	11	3.0	1.3	.75
23	25	283	35	156	63	600	91	33	10	2.8	1.4	.70
24	20	905	31	127	80	408	90	34	10	2.7	1.2	.70
25	13	356	29	106	96	395	96	35	19	2.5	1.0	1.0
26	12	185	28	93	83	632	133	36	18	2.4	.96	3.3
27	7.1	355	26	91	75	311	158	32	14	2.3	.96	3.4
28	5.4	224	36	98	68	220	150	30	12	2.1	1.1	4.0
29	4.4	151	48	109	------	194	133	30	11	2.0	1.0	12
30	3.8	133	92	123	------	192	121	30	10	1.9	1.1	11
31	3.4	------	345	150	------	160	------	30	------	2.0	1.7	------
TOTAL	126.56	3,252.5	4,128	8,239	3,710	5,760	3,698	1,912	578	153.7	39.02	61.55
MEAN	4.08	108	133	266	133	186	123	61.7	19.3	4.96	1.26	2.05
MAX	25	905	719	1,840	230	632	158	137	39	9.4	1.9	12
MIN	.69	2.7	26	45	63	50	90	30	10	1.9	.96	.70
CFSM	.18	4.89	6.02	12.0	6.02	8.42	5.57	2.79	.87	.22	.06	.09
IN.	.21	5.47	6.95	13.87	6.24	9.70	6.22	3.22	.97	.26	.07	.10
AC-FT	251	6,450	8,190	16,340	7,360	11,420	7,330	3,790	1,150	305	77	122

CAL YR 1970	TOTAL 25,291.50	MEAN 69.3	MAX 1,060	MIN .42	CFSM 3.14	IN 42.57	AC-FT 50,170
WTR YR 1971	TOTAL 31,658.33	MEAN 86.7	MAX 1,840	MIN .69	CFSM 3.92	IN 53.29	AC-FT 62,790

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	0900	5.44	1,220	3-26	0030	5.27	1,080
1-17	1000	7.28	2,420				

14372300 Rogue River near Agness, Oreg.
(International Hydrological Decade River Station)

LOCATION.--Lat 42°34'50", long 124°03'30", in NE¼NW¼ sec.6, T.35 S., R.11 W., Curry County, on left bank 0.8 mile upstream from Shasta Costa Creek, 1.5 miles north of Agness, 2.6 miles upstream from Illinois River, and at mile 29.7.

DRAINAGE AREA.--3,939 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.81 ft above mean sea level (levels by U.S. Bureau of Public Roads).

AVERAGE DISCHARGE.--11 years, 6,386 cfs (4,627,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 201,000 cfs Jan. 18; maximum gage height, 41.05 ft Jan. 18 (backwater from Illinois River); minimum discharge, 1,040 cfs Oct. 6.
Period of record: Maximum discharge, 290,000 cfs Dec. 23, 1964, from slope-area measurement; maximum gage height, 68.03 ft, Dec. 23, 1964, from floodmark (backwater from Illinois River); minimum discharge, 608 cfs July 9, 10, 1968.

REMARKS.--Records good. Occasional diurnal fluctuation caused by powerplants upstream; slight regulation by Fish Lake and Emigrant Lake. Many diversions for irrigation and mining. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,060	1,610	14,300	22,500	9,950	8,500	14,700	8,800	7,030	4,130	1,840	1,990
2	1,090	1,560	14,100	14,200	9,830	8,030	13,100	9,030	6,880	4,020	1,870	2,050
3	1,110	1,540	19,600	10,500	9,380	8,600	12,000	9,450	6,250	3,930	1,830	2,070
4	1,120	1,550	28,300	8,290	8,980	10,200	11,300	10,600	5,990	3,720	1,810	2,020
5	1,090	1,690	15,900	7,180	10,900	10,100	11,100	10,800	5,930	3,610	1,780	1,900
6	1,070	2,190	18,000	6,280	14,800	9,100	11,200	10,300	5,890	3,490	1,730	1,780
7	1,130	2,590	28,300	5,680	12,100	8,700	11,300	9,550	5,990	3,250	1,720	1,770
8	1,170	2,800	31,900	5,310	10,500	9,400	11,000	9,800	6,070	3,140	1,720	1,760
9	1,190	6,300	20,200	5,350	9,530	9,400	12,500	10,700	6,580	3,050	1,710	1,700
10	1,200	6,930	14,500	8,200	8,950	10,200	16,700	10,200	6,010	3,010	1,670	1,650
11	1,200	4,730	11,900	12,100	9,300	17,100	15,000	9,700	6,210	3,110	1,630	1,640
12	1,180	6,930	10,500	10,800	9,580	31,200	13,400	9,980	5,530	3,000	1,600	1,590
13	1,620	7,700	8,980	9,130	9,830	28,800	12,400	11,400	5,710	2,850	1,540	1,570
14	1,440	4,630	8,200	8,770	10,000	20,700	11,800	12,000	5,630	2,740	1,510	1,540
15	1,250	3,590	8,530	28,000	10,800	17,000	10,900	10,200	5,430	2,600	1,520	1,540
16	1,200	3,150	22,000	75,300	11,300	14,400	10,800	9,600	5,190	2,590	1,550	1,540
17	1,200	2,930	21,000	175,000	10,100	14,100	12,000	8,950	5,110	2,520	1,550	1,540
18	1,200	2,810	13,600	158,000	9,280	12,700	13,200	7,930	5,090	2,430	1,540	1,480
19	1,210	2,600	10,400	86,900	9,150	11,300	12,300	7,430	5,270	2,420	1,550	1,500
20	1,350	2,490	8,740	55,400	8,650	10,700	11,300	7,080	5,370	2,470	1,540	1,470
21	1,500	2,360	8,260	37,800	7,980	10,600	11,600	6,900	5,230	2,350	1,560	1,490
22	1,730	2,350	7,400	27,000	7,730	11,300	10,500	6,430	5,070	2,230	1,590	1,490
23	2,250	4,990	6,600	21,400	7,880	20,200	9,850	6,230	4,930	2,230	1,650	1,500
24	2,770	34,600	5,950	18,100	7,950	27,500	9,680	6,750	4,850	2,170	1,660	1,470
25	3,360	45,900	5,370	15,600	8,600	24,000	9,230	7,230	5,070	2,110	1,570	1,510
26	2,550	26,400	5,030	13,600	8,680	40,900	8,900	8,050	6,070	2,060	1,560	1,700
27	2,250	19,000	4,810	12,200	8,500	38,800	8,980	8,830	6,880	2,030	1,550	1,960
28	1,890	27,100	5,950	11,300	8,780	26,300	9,180	8,180	5,750	1,970	1,620	2,360
29	1,740	14,200	15,300	10,600	------	20,700	9,130	8,350	5,010	1,930	1,650	2,610
30	1,650	10,900	17,100	10,100	------	18,200	8,900	8,100	4,520	1,880	1,640	3,790
31	1,570	------	23,400	9,900	------	16,900	------	7,530	------	1,840	1,730	------
TOTAL	47,340	258,120	434,120	900,490	269,010	525,630	343,950	276,080	170,540	84,880	50,990	53,980
MEAN	1,527	8,604	14,000	29,050	9,608	16,960	11,470	8,906	5,685	2,738	1,645	1,799
MAX	3,360	45,900	31,900	175,000	14,800	40,900	16,700	12,000	7,030	4,130	1,870	3,790
MIN	1,060	1,540	4,810	5,310	7,730	8,030	8,900	6,230	4,520	1,840	1,510	1,470
AC-FT	93,900	512,000	861,100	1,786M	533,600	1,043M	682,200	547,600	338,300	168,400	101,100	107,100

CAL YR 1970 TOTAL 2,644,680 MEAN 7,246 MAX 108,000 MIN 950 AC-FT 5,246,000
WTR YR 1971 TOTAL 3,415,130 MEAN 9,357 MAX 175,000 MIN 1,060 AC-FT 6,774,000

PEAK DISCHARGE (BASE, 35,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-25	0500	16.28	51,700	1-18	0030	41.05	201,000
12- 8	0600	13.54	36,700	3-26	1730	16.05	50,300

14372500 East Fork Illinois River near Takilma, Oreg.

LOCATION.--Lat 42°00'10", long 123°37'30", in SE¼NE¼ sec.15, T.41 S., R.8 W., Josephine County, on right bank 0.3 mile downstream from Dunn Creek (California-Oregon State line), 3.4 miles south of Takilma, and at mile 71.2.

DRAINAGE AREA.--42.3 sq mi.

PERIOD OF RECORD.--April to September 1926, April 1927 to April 1932, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Records prior to 1942 water year not equivalent owing to large diversions.

GAGE.--Water-stage recorder. Altitude of gage is 1,780 ft (from topographic map). Prior to Oct. 31, 1946, nonrecording gage at sites 0.6 mile downstream at different datums. Oct. 31, 1946, to May 13, 1949, nonrecording gage and May 14, 1949, to Aug. 23, 1965, water-stage recorder at site 0.6 mile downstream at datum 1,746.6 ft above mean sea level.

AVERAGE DISCHARGE.--30 years (1941-71) 184 cfs (133,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,870 cfs Jan. 16 (gage height, 10.87 ft); minimum, 8.1 cfs Oct. 1-6, 14-17.
Period of record: Maximum discharge, 15,700 cfs Dec. 22, 1964 (gage height, 14.90 ft, present site and datum, from floodmark), from rating curve extended above 4,400 cfs on basis of slope-area measurement of peak flow; minimum, 4.6 cfs Nov. 3, 1960.

REMARKS.--Records good. No regulation. Two small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1184: 1948. WSP 1288: 1951(P). WSP 1398: 1946, 1947(M), 1949. WSP 1738: Drainage area (former site).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	25	411	365	188	151	303	262	138	76	23	20
2	8.4	24	405	244	177	151	267	279	124	72	23	26
3	8.1	23	920	185	161	191	256	369	127	66	22	20
4	8.1	30	657	155	145	202	259	380	144	61	22	18
5	8.1	168	596	136	144	188	297	342	153	58	22	17
6	8.4	181	780	124	153	177	338	294	161	56	21	18
7	8.5	133	1,680	114	145	180	276	306	163	52	21	17
8	8.6	830	914	108	134	182	256	387	157	50	20	16
9	8.6	691	554	113	126	165	416	376	151	50	20	15
10	8.6	262	382	286	155	265	442	352	144	48	19	15
11	8.5	367	334	288	193	825	329	405	145	45	19	14
12	8.4	528	273	226	237	918	285	450	140	43	18	14
13	8.4	285	231	190	237	555	294	383	131	41	18	14
14	8.3	181	208	181	235	369	316	276	126	40	18	14
15	8.1	135	302	979	369	297	316	265	122	40	18	13
16	8.1	146	437	3,770	262	251	352	245	126	39	18	13
17	8.1	125	316	5,690	195	219	398	202	122	38	18	12
18	9.8	104	241	2,980	186	205	325	180	132	36	17	12
19	10	89	190	1,620	200	200	288	180	131	35	17	12
20	25	77	169	1,110	186	205	273	180	120	33	17	12
21	35	68	150	567	173	209	242	163	115	32	17	12
22	31	96	132	405	165	655	235	159	112	31	18	11
23	151	998	120	288	140	1,360	242	197	104	30	17	11
24	96	3,030	111	224	159	1,100	232	248	89	29	17	12
25	57	1,710	106	188	184	1,130	217	253	180	27	16	13
26	53	700	100	175	177	1,690	219	227	142	27	16	23
27	36	746	96	169	173	878	245	200	111	26	17	26
28	28	555	198	165	167	608	262	224	92	25	17	32
29	25	374	337	165	------	484	253	219	82	25	16	91
30	24	377	276	171	------	442	248	188	76	24	18	47
31	25	------	579	184	------	366	------	155	------	24	20	------
TOTAL	747.5	13,058	12,205	21,565	5,166	14,818	8,681	8,346	3,860	1,279	580	590
MEAN	24.1	435	394	696	185	478	289	269	129	41.3	18.7	19.7
MAX	151	3,030	1,680	5,690	369	1,690	442	450	180	76	23	91
MIN	8.1	23	96	108	126	151	217	155	76	24	16	11
AC-FT	1,480	25,900	24,210	42,770	10,250	29,390	17,220	16,550	7,660	2,540	1,150	1,170

CAL YR 1970 TOTAL 73,689.4 MEAN 202 MAX 3,030 MIN 8.1 AC-FT 146,200
WTR YR 1971 TOTAL 90,895.5 MEAN 249 MAX 5,690 MIN 8.1 AC-FT 180,300

PEAK DISCHARGE (BASE, 2,500 CFS).--Nov. 24 (1400) 5,180 cfs (9.86 ft); Jan. 16 (2100) 7,870 cfs (10.87 ft).

14375100 Sucker Creek below Little Grayback Creek, near Holland, Oreg.

LOCATION.--Lat 42°09'35", long 123°28'40", in NE¼SW¼ sec.24, T.39 S., R.7 W., Josephine County, on right bank 500 ft downstream from Little Grayback Creek, 2.0 miles downstream from Grayback Creek, 3.7 miles northeast of Holland, and at mile 9.3.

DRAINAGE AREA.--83.9 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,700 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 255 cfs (184,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,720 cfs Jan. 17 (gage height, 7.50 ft); minimum, 24 cfs Oct. 15-17.
Period of record: Maximum discharge, 6,720 cfs Jan. 17, 1971 (gage height, 7.50 ft); minimum, 24 cfs Oct. 15-17, 1970.
Maximum stage since at least 1940, 10.8 ft on Dec. 22, 1964, from floodmark (discharge, 19,300 cfs), from estimate based on slope-area measurement of peak flow at site 0.7 miles upstream.

REMARKS.--Records good. Grayback Canal and 3 small diversions from Grayback and Cave Creeks divert water for domestic use and irrigation above station. Return flow from these diversions enters creek above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	31	445	374	450	222	637	473	397	218	72	59
2	27	31	387	297	479	245	588	491	369	209	72	66
3	26	30	644	246	461	320	551	570	369	200	69	55
4	26	35	600	210	455	309	539	600	380	187	69	52
5	26	118	574	181	509	260	563	619	392	179	66	50
6	27	72	686	159	485	241	576	582	409	170	66	52
7	26	42	1,620	144	432	280	533	600	414	162	66	50
8	27	371	1,040	136	450	314	503	675	403	154	63	48
9	27	367	737	144	397	309	600	675	397	158	61	46
10	27	154	560	274	444	363	612	668	397	154	61	46
11	26	239	462	274	374	675	576	731	386	146	59	44
12	25	321	390	249	503	854	545	796	369	138	57	44
13	26	188	337	234	479	681	570	731	358	134	57	43
14	25	147	291	242	545	570	582	650	341	126	55	43
15	25	123	348	790	656	485	570	619	336	122	57	41
16	25	124	438	2,030	576	461	576	563	336	119	55	41
17	25	106	381	5,960	455	403	588	497	331	115	55	40
18	30	94	326	3,990	461	369	582	461	341	115	54	40
19	32	83	281	2,520	414	352	551	455	336	111	54	40
20	55	76	258	2,040	409	358	539	444	325	103	52	40
21	69	72	228	1,410	380	386	497	403	320	100	54	37
22	63	91	198	992	352	619	479	403	309	96	55	39
23	140	752	175	828	341	1,130	479	455	294	92	54	39
24	70	2,450	159	712	341	1,110	450	515	269	89	50	40
25	50	1,620	147	612	325	1,210	426	551	380	86	50	41
26	46	789	138	503	309	1,960	438	576	374	83	48	66
27	36	778	131	509	279	1,280	467	533	294	80	50	63
28	33	670	166	485	245	985	479	563	254	80	50	75
29	32	519	242	473	-------	854	461	551	236	78	48	150
30	31	492	252	467	-------	789	455	497	222	78	54	92
31	31	-------	433	497	-------	700	-------	426	-------	75	59	-------
TOTAL	1,161	10,985	13,074	27,982	12,006	19,094	16,012	17,373	10,338	3,957	1,792	1,582
MEAN	37.5	366	422	903	429	616	534	560	345	128	57.8	52.7
MAX	140	2,450	1,620	5,960	656	1,960	637	796	414	218	72	150
MIN	25	30	131	136	245	222	426	403	222	75	48	37
AC-FT	2,300	21,790	25,930	55,500	23,810	37,870	31,760	34,460	20,510	7,850	3,550	3,140

CAL YR 1970 TOTAL 95,732 MEAN 262 MAX 3,500 MIN 25 AC-FT 189,900
WTR YR 1971 TOTAL 135,356 MEAN 371 MAX 5,960 MIN 25 AC-FT 268,500

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1300	6.01	3,140	1-17	2130	7.50	6,720
12- 7	1100	5.31	2,230	3-26	0030	5.23	2,530

14375500 West Fork Illinois River below Rock Creek, near O'Brien, Oreg.

LOCATION.--Lat 42°02'20", long 123°44'50", in SW¼SE¼ sec.34, T.40 S., R. 9 W., Josephine County, on left bank 0.2 mile downstream from Rock Creek, 3.0 miles southwest of O'Brien, and at mile 12.8.

DRAINAGE AREA.--42.4 sq mi.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,516.14 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 220 cfs (70.46 inches per year, 159,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,900 cfs Jan. 16 (gage height, 13.72 ft); minimum, 3.9 cfs Oct. 3, 4.
Period of record: Maximum discharge, 16,100 cfs Dec. 22, 1964 (gage height, 16.05 ft), from rating curve extended above 6,200 cfs, on basis of slope-area measurement at gage height 14.79 ft; minimum, 3.2 cfs Sept. 23, 1957, Aug. 12, 1959.

REMARKS.--Records good. Occasional diurnal fluctuation caused by logpond upstream. Three small diversions from Elk Creek for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	17	730	762	151	145	355	150	47	28	9.0	16
2	4.4	16	738	487	143	150	317	141	44	28	8.7	20
3	4.4	15	1,950	360	134	395	279	135	40	26	8.5	14
4	4.0	17	1,150	297	135	445	211	125	39	25	8.2	10
5	4.4	84	1,210	252	147	317	224	116	38	24	8.2	9.0
6	4.2	159	1,370	222	152	254	228	109	37	23	8.2	9.8
7	4.6	164	2,280	202	141	307	208	103	35	22	8.0	9.0
8	4.5	927	1,130	188	129	335	264	99	34	22	7.8	8.5
9	4.9	666	670	190	117	266	556	94	34	28	7.5	8.0
10	4.9	247	484	584	115	662	636	87	34	25	7.3	7.5
11	4.7	558	395	574	107	1,750	511	83	32	23	6.9	7.3
12	4.6	703	331	418	110	1,520	442	83	31	22	6.7	7.3
13	4.6	303	297	331	107	941	403	80	31	20	6.7	6.9
14	4.7	192	287	413	129	662	375	73	30	19	6.7	6.4
15	4.8	140	454	2,080	211	535	331	74	29	18	6.9	6.2
16	4.7	154	910	4,440	200	439	423	81	27	16	6.7	6.2
17	4.7	140	591	5,930	167	347	686	72	27	15	6.7	6.0
18	6.4	115	415	2,810	165	307	571	67	29	14	6.4	5.8
19	7.2	97	325	1,450	180	295	433	64	29	15	6.2	5.7
20	18	84	315	965	164	297	360	62	28	14	6.2	5.7
21	31	74	311	629	147	289	295	60	26	17	6.4	5.7
22	30	127	275	469	140	856	267	57	24	14	7.3	5.7
23	157	2,340	242	370	124	1,610	267	55	22	13	7.5	5.7
24	107	4,670	216	311	192	1,120	240	52	20	12	6.4	5.7
25	70	2,210	198	262	227	1,190	216	53	70	12	6.2	6.7
26	80	905	184	225	186	1,980	207	56	60	11	6.0	18
27	47	1,530	175	204	177	1,120	201	51	44	11	7.8	26
28	33	990	738	188	163	710	189	49	36	10	8.0	33
29	26	568	1,180	175	-------	550	175	47	32	10	7.5	214
30	22	626	1,090	163	-------	493	159	45	30	9.8	9.0	108
31	19	-------	1,700	156	-------	433	-------	45	-------	9.3	14	-------
TOTAL	731.1	18,838	22,341	26,107	4,245	20,720	10,029	2,468	1,039	556.1	233.6	603.8
MEAN	23.6	628	721	842	152	668	334	79.6	34.6	17.9	7.54	20.1
MAX	157	4,670	2,280	5,930	222	1,980	686	150	70	28	14	214
MIN	4.0	15	175	156	107	145	159	45	20	9.3	6.0	5.7
CFSM	.56	14.8	17.0	19.9	3.58	15.8	7.88	1.88	.82	.42	.18	.47
IN.	.64	16.53	19.60	22.91	3.72	18.18	8.80	2.17	.91	.49	.20	.53
AC-FT	1,450	37,370	44,310	51,780	8,420	41,100	19,890	4,900	2,060	1,100	463	1,200

CAL YR 1970 TOTAL 99,584.2 MEAN 273 MAX 4,670 MIN 4.0 CFSM 6.44 IN 87.37 AC-FT 197,500
WTR YR 1971 TOTAL 107,911.6 MEAN 296 MAX 5,930 MIN 4.0 CFSM 6.98 IN 94.68 AC-FT 214,000

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1200	11.29	6,290	12-31	0400	8.21	2,500
12- 3	1400	9.13	3,380	1-16	1900	13.72	10,900
12- 7	0900	8.87	3,120	3-11	2100	8.36	2,630

14377100 Illinois River near Kerby, Oreg.

LOCATION.--Lat 42°13'55", long 123°39'45", in SE¼SE¼ sec.29, T.38 S., R.8 W., Josephine County, on right bank 1.6 miles upstream from Josephine Creek, 2.5 miles northwest of Kerby, and at mile 50.3.

DRAINAGE AREA.--380 sq. mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,198.08 ft above mean sea level. Prior to Jan. 28, 1965, water-stage recorder at site 700 ft downstream at datum 2.99 ft lower. Jan. 28 to Sept. 30, 1965, nonrecording gage at site 700 ft downstream at datum 2.99 ft lower.

AVERAGE DISCHARGE.--10 years, 1,345 cfs (974,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 46,300 cfs Jan. 17 (gage height, 33.68 ft); minimum, 24 cfs Oct. 10.
Period of record: Maximum discharge, 92,200 cfs Dec. 22, 1964 (gage height, 45.28 ft, from floodmark, site and datum then in use), from rating curve extended above 30,000 cfs on basis of slope-area measurement of peak flow; minimum, 22 cfs Sept. 1, 1970.

REMARKS.--Records good. No regulation. Diversions for irrigation above station. Some diversions for mining and logpond operation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	119	3,750	3,850	1,450	1,040	2,610	1,540	846	400	110	93
2	32	115	4,010	2,520	1,400	1,010	2,300	1,530	762	373	97	103
3	29	113	8,440	1,900	1,290	2,000	2,100	1,670	731	358	101	114
4	27	112	6,470	1,500	1,220	2,400	2,000	1,720	734	332	103	106
5	27	236	5,510	1,360	1,290	2,100	2,000	1,690	752	306	101	94
6	27	682	6,410	1,220	1,360	1,400	2,050	1,560	769	270	101	95
7	26	746	11,700	1,100	1,280	1,470	1,900	1,540	790	254	98	98
8	26	3,250	7,190	1,020	1,190	1,680	1,960	1,680	752	242	92	94
9	27	4,460	4,390	994	1,110	1,500	3,720	1,700	745	243	90	87
10	27	1,730	3,100	2,270	1,110	1,490	4,490	1,620	713	251	92	79
11	28	1,950	2,520	2,660	1,270	5,210	3,450	1,690	703	236	92	73
12	28	3,730	2,100	2,150	1,350	8,650	2,880	1,830	675	224	88	67
13	29	1,920	1,880	1,800	1,450	5,510	2,640	1,790	641	206	84	58
14	30	1,250	1,700	2,050	1,390	3,870	2,590	1,480	626	197	81	53
15	31	942	2,180	9,590	2,090	3,040	2,470	1,360	602	194	82	52
16	31	906	4,540	20,500	1,810	2,590	2,680	1,300	593	182	72	50
17	31	875	3,340	37,900	1,630	2,260	3,800	1,140	578	161	57	47
18	34	738	2,400	21,900	1,370	2,070	3,230	1,030	581	164	57	52
19	36	640	1,930	10,800	1,400	1,950	2,630	982	596	171	53	46
20	65	566	1,700	7,840	1,250	1,890	2,380	954	578	165	58	44
21	83	499	1,600	5,290	1,150	1,890	2,080	895	554	157	56	42
22	108	562	1,500	3,820	1,140	3,440	1,910	832	533	148	54	46
23	322	8,170	1,300	2,920	1,040	8,340	1,970	878	516	146	57	45
24	643	23,700	1,100	2,340	1,050	6,820	1,830	990	471	137	61	45
25	344	13,100	1,000	2,030	1,300	6,490	1,680	1,080	647	136	60	48
26	356	5,820	950	1,770	1,180	12,900	1,610	1,140	825	133	54	62
27	281	7,270	900	1,610	1,200	7,600	1,680	1,090	629	128	56	97
28	213	5,410	2,500	1,500	1,110	5,110	1,700	1,120	524	124	57	137
29	164	3,160	5,140	1,420	------	4,050	1,630	1,090	471	121	57	494
30	135	3,060	4,270	1,400	------	3,590	1,530	1,010	440	120	60	635
31	123	------	7,020	1,420	------	3,100	------	899	------	108	70	------
TOTAL	3,393	95,831	112,540	160,444	36,880	116,460	71,500	40,830	19,377	6,387	2,351	3,156
MEAN	109	3,194	3,630	5,176	1,317	3,757	2,383	1,317	646	206	75.8	105
MAX	643	23,700	11,700	37,900	2,090	12,900	4,490	1,830	846	400	110	635
MIN	26	112	900	994	1,040	1,010	1,530	832	440	108	53	42
AC-FT	6,730	190,100	223,200	318,200	73,150	231,000	141,800	80,990	38,430	12,670	4,660	6,260

CAL YR 1970 TOTAL 576,601 MEAN 1,580 MAX 23,700 MIN 23 AC-FT 1,144,000
WTR YR 1971 TOTAL 669,149 MEAN 1,833 MAX 37,900 MIN 26 AC-FT 1,327,000

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1200	25.33	26,200	1-17	0030	33.68	46,300
12- 3	1730	19.06	14,600	3-11	2330	17.79	12,700
12- 7	1230	20.08	16,200	3-26	0400	19.29	14,900

14378200 Illinois River near Agness, Oreg.

LOCATION.--Lat 42°31'15", long 124°02'35", in SW¼NW¼ sec.29, T.35 S., R.11 W., Curry County, on right bank 0.6 mile downstream from Lawson Creek, 1.4 miles upstream from Fox Creek, 2.8 miles southeast of Agness, and at mile 3.0.

DRAINAGE AREA.--988 sq mi, at cable section 2.1 miles downstream where all measurements are made.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 125.86 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 4,439 cfs (61.01 inches per year, 3,216,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 132,000 cfs Jan. 17, estimated on basis of runoff correlation with station near Kerby; minimum, 135 cfs Oct. 7.

Period of record: Maximum discharge, 225,000 cfs Dec. 22, 1964, estimated on basis of runoff ratio with station near Selma; maximum gage height, 56.91 ft Dec. 22, 1964, from floodmark (backwater from Rogue River); minimum discharge, 135 cfs Oct. 7, 1970.

REMARKS.--Records good except those above 8,000 cfs and those for period of no gage-height record, which are fair. No regulation. Many diversions above station for irrigation, mining, and logpond operation. Records include flow of Fox Creek. All records given herein are for measuring site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	510	10,300	13,800	5,130	4,030	7,660	4,550	1,930	976	342	280
2	160	475	10,300	9,160	4,950	3,930	6,910	4,550	1,800	920	338	300
3	153	445	20,700	7,360	4,600	4,870	6,430	4,950	1,690	864	330	320
4	153	470	19,800	6,130	4,460	6,430	6,210	4,930	1,650	826	322	300
5	149	1,190	14,900	5,350	4,790	6,050	6,250	4,630	1,640	784	326	300
6	142	2,960	24,200	4,730	4,870	5,350	6,290	4,330	1,640	742	322	280
7	142	3,280	39,800	4,330	4,630	5,230	5,890	4,220	1,630	694	318	280
8	146	5,200	22,200	4,030	4,360	5,610	6,370	4,350	1,590	658	310	280
9	146	11,600	12,900	4,010	4,120	5,290	13,500	4,310	1,550	670	303	260
10	149	5,240	9,430	6,690	4,140	7,160	15,000	4,090	1,520	664	300	260
11	149	5,680	8,160	7,610	4,460	23,100	11,700	4,070	1,470	658	296	260
12	149	9,110	7,110	6,640	4,550	30,400	10,200	4,250	1,430	640	286	260
13	149	5,880	6,370	5,870	4,650	19,000	8,980	4,200	1,390	610	279	240
14	149	3,920	5,990	6,350	4,570	12,800	8,660	3,690	1,340	575	272	240
15	153	3,090	7,160	35,200	5,590	10,300	8,310	3,390	1,290	550	268	240
16	153	3,500	13,000	61,800	5,330	8,740	7,760	3,390	1,230	535	268	240
17	153	3,090	10,400	110,000	4,750	7,690	9,310	3,060	1,210	515	265	220
18	177	2,640	8,040	70,000	4,380	6,960	9,040	2,800	1,220	485	261	220
19	188	2,270	6,690	41,400	4,330	6,450	7,840	2,680	1,240	490	261	220
20	372	1,990	6,390	25,300	4,060	6,230	7,110	2,540	1,190	480	260	220
21	746	1,750	6,350	16,100	3,850	6,270	6,370	2,430	1,130	462	260	220
22	734	1,800	5,650	12,000	3,750	7,240	5,790	2,290	1,080	449	260	220
23	2,040	11,800	5,050	10,200	3,630	19,300	5,590	2,320	1,060	435	260	220
24	2,430	66,500	4,590	8,660	3,910	19,000	5,230	2,450	1,020	422	260	220
25	1,880	34,200	4,250	7,490	4,550	15,800	4,850	2,540	1,620	413	240	240
26	1,580	16,400	3,980	6,510	4,350	35,000	4,830	2,750	1,830	404	240	280
27	1,170	19,200	3,800	5,970	4,390	21,700	5,130	2,590	1,510	395	240	360
28	868	17,000	6,590	5,410	4,250	13,600	5,090	2,450	1,280	382	240	550
29	704	10,800	13,800	5,170	------	10,800	4,830	2,390	1,130	378	240	1,300
30	608	9,580	13,200	5,030	------	9,790	4,590	2,220	1,050	370	240	1,600
31	560	------	24,500	5,070	------	8,760	------	2,040	------	358	260	------
TOTAL	16,626	261,570	355,600	523,370	125,400	352,880	221,720	105,450	42,360	17,804	8,667	10,430
MEAN	536	8,719	11,470	16,880	4,479	11,380	7,391	3,402	1,412	574	280	348
MAX	2,430	66,500	39,800	110,000	5,590	35,000	15,000	4,950	1,930	976	342	1,600
MIN	142	445	3,800	4,010	3,630	3,930	4,590	2,040	1,020	358	240	220
CFSM	.54	8.82	11.6	17.1	4.53	11.5	7.48	3.44	1.43	.58	.28	.35
IN.	.63	9.85	13.39	19.71	4.72	13.29	8.35	3.97	1.59	.67	.33	.39
AC-FT	32,980	518,800	705,300	1,038M	248,700	699,[illegible]00	439,800	209,200	84,020	35,310	17,190	20,690

CAL YR 1970 TOTAL 1,888,456 MEAN 5,174 MAX 66,500 MIN 142 CFSM 5.24 IN 71.10 AC-FT 3,746,000

WTR YR 1971 TOTAL 2,041,877 MEAN 5,594 MAX 110,000 MIN 142 CFSM 5.66 IN 76.88 AC-FT 4,050,000

PEAK DISCHARGE (BASE, 35,000 CFS)

NOTE.--No gage-height record Aug. 20 to Sept. 30.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	1200	20.06	81,400	1-17	2100	28.63	132,000
12- 3	2130	15.72	36,700	3-12	0130	16.35	41,400
12- 7	1500	17.24	49,000	3-26	0800	16.22	40,300

14400000 Chetco River near Brookings, Oreg.

LOCATION.--Lat 42°07'25", long 124°11'10", in SE¼ sec.12, T.40 S., R.13 W., Curry County, on right bank 16 ft upstream from bridge, 0.5 mile upstream from Elk Creek, 6.8 miles northeast of Brookings, and at mile 10.7.

DRAINAGE AREA.--271 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 65,800 cfs Jan. 16 (gage height, 27.45 ft); minimum recorded, 52 cfs Oct. 14, 15, but may have been lower during period of no gage-height record Oct. 16-27.

Period of record: Maximum discharge, 65,800 cfs Jan. 16, 1971 (gage height, 27.45 ft); minimum recorded, 52 cfs Oct. 14, 15, 1970, but may have been lower during period of no gage-height record Oct. 16-27, 1970.

Flood of Dec. 22, 1964, reached a stage of 32.25 ft, from high-water mark on bridge pier (discharge 85,400 cfs), from rating curve extended above 45,000 cfs.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	256	5,730	9,940	1,490	1,400	3,770	1,490	451	441	164	759
2	58	232	6,200	6,270	1,390	1,300	3,170	1,440	431	408	159	1,060
3	58	214	13,000	4,410	1,270	3,800	2,750	1,470	415	386	155	549
4	57	232	10,700	3,360	1,310	4,200	2,470	1,440	402	364	153	371
5	57	632	11,400	2,760	1,610	3,260	2,340	1,310	399	349	151	290
6	57	2,050	15,900	2,320	1,560	2,660	2,240	1,200	389	334	147	252
7	57	2,560	21,500	2,000	1,390	2,560	2,010	1,160	377	319	145	225
8	58	5,510	12,100	1,800	1,250	2,530	3,150	1,200	361	311	139	206
9	58	7,290	7,410	1,780	1,160	2,300	10,800	1,130	352	361	135	192
10	58	2,930	5,200	5,070	1,140	5,370	10,100	1,050	358	340	131	181
11	57	3,910	4,280	5,210	1,240	16,400	7,920	1,030	343	316	129	172
12	55	5,930	3,400	4,030	1,200	17,000	6,830	1,070	328	299	127	166
13	54	3,400	2,850	3,260	1,180	10,800	5,480	1,080	328	285	125	157
14	52	2,320	2,770	4,570	1,250	7,880	4,680	904	319	271	123	145
15	52	1,880	4,300	19,700	2,020	5,980	4,100	863	305	260	120	141
16	52	3,180	8,230	33,100	1,960	4,850	3,830	931	293	250	120	135
17	55	2,710	5,890	48,500	1,610	3,850	4,710	834	282	242	120	131
18	60	2,040	4,420	34,600	1,500	3,140	4,580	759	340	235	116	125
19	90	1,620	3,470	16,000	1,500	2,690	3,790	718	364	235	114	122
20	170	1,320	3,550	11,300	1,380	2,470	3,380	691	322	225	114	120
21	440	1,120	3,630	7,230	1,290	2,380	2,840	655	296	215	135	116
22	420	1,400	3,090	5,330	1,250	3,650	2,530	621	279	208	192	114
23	2,000	20,000	2,660	4,090	1,200	11,200	2,490	638	282	201	174	112
24	1,400	35,000	2,270	3,280	1,500	10,100	2,230	638	271	196	141	110
25	1,000	20,000	1,970	2,700	2,100	8,340	2,010	629	1,260	192	125	114
26	1,200	10,000	1,730	2,300	1,800	15,200	1,900	660	1,260	187	118	201
27	705	15,100	1,650	2,010	1,700	10,400	1,940	584	805	183	116	352
28	489	9,660	6,620	1,820	1,500	7,460	1,840	560	629	181	129	415
29	383	6,300	10,900	1,670	------	5,960	1,690	537	537	179	127	1,560
30	322	5,240	12,400	1,570	------	5,370	1,560	497	483	176	139	1,380
31	291	------	18,700	1,510	------	4,660	------	469	------	170	319	------
TOTAL	9,923	174,036	217,920	253,490	40,750	189,160	113,130	28,258	13,261	8,319	4,402	9,973
MEAN	320	5,801	7,030	8,177	1,455	6,102	3,771	912	442	268	142	332
MAX	2,000	35,000	21,500	48,500	2,100	17,000	10,800	1,490	1,260	441	319	1,560
MIN	52	214	1,650	1,510	1,140	1,300	1,560	469	271	170	114	110
CFSM	1.18	21.4	25.9	30.2	5.37	22.5	13.9	3.37	1.63	.99	.52	1.23
IN.	1.36	23.89	29.91	34.80	5.59	25.97	15.53	3.88	1.82	1.14	.60	1.37
AC-FT	19,680	345,200	432,200	502,800	80,830	375,200	224,400	56,050	26,300	16,500	8,730	19,780

CAL YR 1970 TOTAL 1,027,311 MEAN 2,815 MAX 35,000 MIN 52 CFSM 10.4 IN 141.02 AC-FT 2,038,000
WTR YR 1971 TOTAL 1,062,622 MEAN 2,911 MAX 48,500 MIN 52 CFSM 10.7 IN 145.87 AC-FT 2,108,000

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-24	(Time & discharge unknown)			12-31	0630	15.14	23,100
12- 3	1730	14.23	20,600	1-16	2130	27.45	65,800
12- 7	1000	16.27	26,400	3-11	2300	16.08	26,300

Discharge at ungaged sites

Monthly records for the following sites have been computed by routing methods described in USGS Circular 550. Circular 550 contains monthly records for these sites for water years 1928-65, including monthly flows adjusted for major upstream storage. Figures given here represent unadjusted flows, and are rated fair. Adjusted records are available and will be published in water-supply papers at five-year intervals.

14144700 COLUMBIA RIVER AT VANCOUVER, WASH.--Lat 45°37'15", long 122°40'20", in NE¼NW¼ sec.34, T.2 N., R.1 E., Clark County, 5.0 miles upstream from Willamette River, and at mile 106.5. Drainage area, 241,000 sq mi, approximately. Records available, monthly discharge October 1927 to current year. Daily discharge for October 1963 to September 1969, published in annual data reports for Oregon, 1965-67, 1969.

14211808 WILLAMETTE RIVER (mouth) AT PORTLAND, OREG.--Lat 45°37'09", long 122°47'27", Multnomah County, center of channel at bifurcation of Willamette River and Multnomah Channel, and at mile 3.4. Drainage area, 11,200 sq mi, approximately. Records available, monthly discharge October 1927 to current year.

14222870 COLUMBIA RIVER AT ST. HELENS, OREG.--Lat 45°51'58", long 122°47'00", Columbia County, center of channel at intersection of Township (4/5N) line and Oregon-Washington boundary, 0.6 miles east of St. Helens, and at mile 86.0. Drainage area, 253,900 sq mi, approximately. Records available, monthly discharge October 1927 to current year.

14245300 COLUMBIA RIVER AT LONGVIEW, WASH.--Lat 46°06'22", long 122°57'14", Cowlitz County, at Longview Bridge, 1.0 mile south of Longview, 2.0 miles downstream from Cowlitz River, and at mile 66.0. Drainage area, 256,700 sq mi, approximately. Records available, monthly discharge October 1927 to current year.

14280000 COLUMBIA RIVER AT MOUTH, NEAR ASTORIA, OREG.--Lat 46°15', long 124°05', Clatsop County, center of channel at river mouth, due north from original end of south jetty, 12.3 miles northwest of Astoria, and at mile 0. Drainage area, 258,000 sq mi, approximately. Records available, monthly discharge October 1927 to current year.

MONTHLY AND ANNUAL MEAN DISCHARGE IN CUBIC FEET PER SECOND

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Annual
14144700 Columbia River at Vancouver, Wash.													
1966	112,600	113,600	122,000	135,500	131,300	146,600	169,700	268,500	346,100	268,300	143,800	102,200	171,600
1967	101,600	109,600	134,600	150,300	149,800	147,600	157,300	254,700	583,900	364,300	160,500	112,900	202,000
1968	117,300	121,400	148,000	139,900	181,600	182,200	133,200	199,000	364,600	266,400	144,600	131,100	177,300
1969	126,600	149,100	158,700	193,900	182,800	198,400	362,800	419,700	352,400	248,500	129,500	103,200	219,000
1970	121,600	130,800	141,500	194,400	166,500	165,100	162,200	272,000	354,500	192,000	132,400	113,000	178,700
1971	120,000	129,800	145,000	188,300	217,200	234,700	273,200	502,200	506,000	300,200	169,300	115,600	241,600
14211808 Willamette River (mouth) at Portland, Oreg.													
1966	12,110	22,990	27,910	102,900	30,330	62,190	34,080	20,340	10,460	7,220	6,400	8,750	28,350
1967	12,770	41,420	72,070	76,560	56,690	34,860	24,340	21,340	13,290	7,570	6,610	8,330	31,030
1968	18,260	26,310	46,010	53,650	82,150	35,220	21,870	16,410	15,020	7,850	11,020	13,220	28,710
1969	33,060	75,840	103,800	93,430	56,690	35,150	31,890	33,750	22,880	16,050	9,990	12,660	43,720
1970	16,620	24,280	62,520	118,300	88,460	31,590	21,990	28,320	12,210	8,710	8,350	10,630	36,400
1971	15,040	41,680	73,290	123,300	60.280	72,860	54,130	35,730	27,400	13,250	10,580	14,670	45,210
14222870 Columbia River at St. Helens, Oreg.													
1966	126,000	141,800	158,600	249,800	169,700	218,900	210,600	295,200	360,300	278,000	152,100	112,100	205,400
1967	117,400	157,900	221,400	242,000	217,800	192,900	188,700	280,400	598,500	372,800	168,000	122,300	239,400
1968	141,500	156,400	204,400	203,500	279,500	225,500	162,200	218,200	385,900	275,800	158,200	147,600	212,800
1969	167,900	237,200	275,000	300,400	246,500	238,600	400,600	462,900	381,100	267,100	140,700	118,000	269,800
1970	114,800	162,400	213,700	329,200	266,300	206,600	190,500	304,200	367,800	201,600	141,700	124,700	221,400
1971	138,900	180,000	231,000	328,300	290,100	318,600	335,700	545,600	540,800	317,800	181,800	134,200	294,800
14245300 Columbia River at Longview, Wash.													
1966	129,000	148,700	168,000	266,000	179,300	235,700	225,200	307,000	369,500	283,800	154,500	114,300	214,600
1967	121,600	167,400	247,100	269,800	234,300	205,500	197,600	293,600	612,400	377,900	170,200	124,400	251,300
1968	150,700	166,100	220,500	221,800	307,100	240,200	169,100	223,200	391,500	278,100	162,000	151,700	223,100
1969	177,400	256,100	298,400	323,300	260,800	249,000	410,800	473,100	392,600	271,900	144,700	123,100	282,100
1970	154,100	173,800	230,400	355,200	284,600	219,200	202,200	312,400	371,800	204,100	144,400	129,800	232,200
1971	147,200	194,700	253,700	356,900	308,800	339,300	350,600	556,000	554,000	328,000	186,300	140,600	309,400
14280000 Columbia River at mouth, near Astoria, Oreg.													
1966	131,400	153,800	175,100	284,400	186,600	248,500	233,400	302,100	375,000	290,200	160,700	116,300	220,800
1967	125,400	175,300	264,800	286,600	250,200	214,800	206,700	284,200	610,600	398,200	173,900	127,400	259,000
1968	157,600	170,400	233,200	234,700	325,200	250,200	175,700	216,100	394,700	287,100	164,900	157,200	231,000
1969	184,200	268,600	312,800	337,500	269,800	254,600	416,800	478,100	397,800	281,600	148,200	123,300	290,500
1970	159,100	179,600	240,500	375,100	298,900	228,000	207,400	304,900	379,300	209,800	145,300	131,600	238,800
1971	152,200	200,700	271,700	381,100	320,900	351,400	361,800	546,400	562,500	340,100	190,100	145,400	318,400

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Siuslaw River basin				
†14306920	Siuslaw River near Lorane, Oreg.	Lat 43°51'05", long 123°22'10", in NE¼ sec.11, T.20 S., R.6 W., Lane County, on left bank 0.5 mile below Siuslaw Falls, 0.4 mile downstream from Russell Creek, 7 miles northwest of Lorane, and at mile 99.3	81.8	1968-71	3-12-71 5-10-71 9-21-71	1,360 89.2 *9.93
†14306940	Siuslaw River at Alma, Oreg.	Lat 43°52'55" long 123°29'30", in NE¼ sec.35, T.19 S., R.7 W., Lane County, on right and left banks 0.8 mile above Haight Creek, 1 mile southwest of Alma, and at mile 80.8.	120	1968-71	3-12-71 5-10-71 9-21-71	2,280 139 16.5
†14306960	Esmond Creek near Austa, Oreg.	Lat 43°54'55", long 120°38'40", in NE¼ sec.16, T.19 S., R.8 W., Lane County, on right bank, 200 ft below Leopold Creek, 6.2 miles south of Austa, and at mile 1.68.	15.6	1968-71	1-18-71 5-10-71 9-21-71	560 17.1 *2.11
†14306980	Wolf Creek near Austa, Oreg.	Lat 43°58'00", long 123°36'30", in NW¼ sec.36, T.18 S., R.8 W., Lane County, on right bank, 1.1 miles below Saleratus Creek, 3.3 miles southeast of Austa, and 1.5 miles above mouth.	59.0	1968-71	1-18-71 5-11-71 9-21-71	1,920 80.5 *13.7
†14307020	Chickahominy Creek near Walton, Oreg.	Lat 44°01'55", long 123°35'20", in SW¼ sec.6, T.18 S., R.7 W., Lane County, on left bank 0.2 mile above mouth, and 0.4 mile west of Walton.	12.5	1968-71	3-12-71 5-11-71 9-20-71	373 21.0 2.62
†14307050	Wildcat Creek near Austa, Oreg.	Lat 43°59'35", long 123°37'20", in NW¼ sec.23, T.18 S., R.8 W., Lane County, on right bank 1.0 mile below Fowler Creek, 1.5 miles southeast of Austa and 3.1 miles above mouth.	51.9	1968-71	3-12-71 5-11-71 9-20-71	1,390 82.6 *10.1
†14307500	Lake Creek at Triangle Lake, Oreg.	Lat 44°09'40", long 123°34'10", in SW¼ sec.20, T.16 S., R.7 W., Lane County, on right bank 600 ft downstream from outlet of Triangle Lake, and at mile 18.81.	52.5	1931-55‡, 1968-71	3-11-71 5-12-71 9-23-71	923 91.7 12.9
†14307570	Deadwood Creek near Deadwood, Oreg.	Lat 44°06'35", long 123°45'05", in SE¼NE¼ sec.10, T.17 S., R.9 W., Lane County on left bank 1.0 mile north of Deadwood and 4.0 miles above mouth.	57.4	1968-71	3-11-71 5-12-71 9-23-71	1,690 96.1 18.5
†14307600	Indian Creek near Rainrock, Oreg.	Lat 44°06'45", long 123°50'55", in NE¼ sec.11, T.17 S., R.10 W., Lane County, on left bank 150 ft above Elk Creek, 2.6 miles north of Rainrock, and 7.71 miles above mouth.	37.0	1968-71	3-12-71 5-12-71 9-22-71	1,360 102 *29.1
†14307625	Knowles Creek near Mapleton, Oreg.	Lat 44°01'40", long 123°50'10", in NE¼ sec.12, T.18 S., R.10 W., Lane County, on right bank 1.0 miles east of Mapleton, 1.2 miles downstream from Jackson Creek, 3.0 miles southwest of Swisshome, and at mile 2.8.	17.7	1968-71	12-31-70 1-18-71 9-22-71	496 561 1.49
†14307630	Sweet Creek near Beck, Oreg.	Lat 43°59'10", long 123°54'10", in NW¼ sec.28, T.18 S., R.10 W., Lane County, on both banks 1.3 miles downstream from Cedar Creek, 3.4 miles southwest of Mapleton and 3.3 miles upstream from mouth.	19.8	1968-71	12-31-70 5-11-71 9-22-71	901 35.2 8.53
†14307648	Condon Creek near Minerva, Oreg.	Lat 44°03'20", long 124°00'30", in NE¼ sec.33, T.17 S., R.11 W., Lane County, on right bank 1.5 miles downstream from Billie Creek, 2.5 miles southwest of Minerva and 1.3 miles above mouth.	9.91	1968-71	12-30-70 5- 3-71 9- 8-71	466 39.6 *11.2

* Base flow.

† Also a crest-stage station.

‡ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Black Rock Desert basin (Nevada)					
10352300	Jackson Creek tributary near McDermitt, Nev.	Lat 42°14'00", long 117°44'20", in N½ sec.36, T.38 S., R.42 E., Malheur County, at culvert on BLM Star Valley Road 930-0, 15 miles north of McDermitt.	6.61	1969-71	1-17-71	9.68	7.0
10352400	Turner Creek near McDermitt, Nev.	Lat 42°02'18", long 118°06'55", in SW¼ sec.2, T.41 S., R.39 E., Malheur County, at culvert on BLM access road, 20 miles west of McDermitt.	2.04	1971	1-17-71	-	97
		Silver Lake basin					
10390400	Bridge Creek near Thompson Reservoir, Oreg.	Lat 43°01'30", long 121°12'00", in S½ sec.29, T.29 S., R.13 E., Lake County, at culvert on Forest Service road 2800 in Fremont National Forest, 7.2 miles northwest of Thompson Reservoir, and 11 miles southwest of town of Silver Lake.	10.6	1965-71	1-18-71	11.29	118
		Malheur and Harney Lakes basin					
10392300	Silvies River near Seneca, Oreg.	Lat 44°10'30", long 119°12'50", in NW¼NW¼ sec.23, T.16 S., R.29 E., Grant County, at culvert on Forest Service road 1611 in Malheur National Forest, 100 feet downstream from Wickiup Creek, and 12 miles northwest of Seneca.	18.4	1967-71	5-10-71	12.74	78
10392800	Crowsfoot Creek near Burns, Oreg.	Lat 43°53'55", long 119°29'50", in NE¼ sec.29, T.19 S., R.27 E., Harney County, at culvert on Forest Service road 1939 in Ochoco National Forest, 1 mile upstream from mouth, and 31 miles northwest of Burns.	8.50	1966-71	1-17-71	9.53	72
10393900	Devine Canyon near Burns, Oreg.	Lat 43°46'20", long 119°00'05", in NE¼ sec.9, T.21 S., R.31 E., Harney County, at culvert at U.S. Highway 395, at junction with road to Baker Corral, 0.7 mile north of Ochoco National Forest boundary, and 15 miles north of Burns.	4.96	1965-71	4-26-71	12.62	14
10395200	Sage Hen Creek near Burns, Oreg.	Lat 43°31'30", long 119°15'10", in NW¼ sec.4, T.24 S., R.29 E., Harney County, at culvert on U.S. Highway 395, 10.8 miles southwest of Burns.	-	1968-71	3-25-71	12.36	5.3
		Goose Lake basin					
11341100	Salt Creek near Lakeview, Oreg.	Lat 42°17'35", long 120°20'45", in NW¼ sec.10, T.38 S., R.20 E., Lake County, at culvert on U.S. Highway 395, 1.7 miles upstream from mouth, 2.6 miles north of Warner Valley Junction, and 7.6 miles north of Lakeview.	5.62	1964-71	3-12-71	15.81	92
11341200	Crane Creek near Lakeview, Oreg.	Lat 42°07'05", long 120°17'25", in NW¼ sec.7, T.40 S., R.21 E., Lake County, at culvert on Crane Creek road in Fremont National Forest, 1.5 miles east of crossing at U.S. Highway 395, and 6 miles southeast of Lakeview.	11.4	1966-71	3-12-71	14.26	148
		Klamath River basin					
11491800	Mosquito Creek near Shevlin, Oreg.	Lat 43°05'40", long 121°32'50", in SE¼SE¼ sec.32, T.28 S., R.10 E., Klamath County, at culvert on Forest Service road 283A in Winema National Forest, 150 ft south of intersection with road 283, 2 miles southwest of Jacks Corral, and 8 miles southeast of Shevlin.	a2.4	1965-71	1-17-71	8.52	28
11494800	Brownsworth Creek near Bly, Oreg.	Lat 42°25'40", long 120°50'20", in NW¼NW¼ sec.28, T.36 S., R.16 E., Lake County, at culvert on Forest Service road 3610 in Fremont National Forest, 2 miles upstream from Hammond Creek, and about 12 miles east of Bly.	2.20	1965-71	3-12-71	11.92	42
11497800	Currier Creek near Paisley, Oreg.	Lat 42°42'55", long 120°52'50", in NW¼NW¼ sec.18, T.33 S., R.16 E., Lake County, at culvert on Forest Service road 337, 100 ft east of junction with road 3313 in Fremont National Forest, 1.4 miles upstream from mouth, and 17 miles west of Paisley.	2.46	1965-71	3-13-71	15.72	129

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Klamath River basin--Continued					
11501300	Crystal Creek near Chiloquin, Oreg.	Lat 42°33'45", long 121°50'20", in SE¼ sec.2, T.35 S., R.7 E., Klamath County, at culvert on Chiloquin Ridge road in Winema National Forest, 200 ft upstream from mouth, and 1.5 miles southeast of Chiloquin.	5.77	1965-71	1-17-71	13.82	31
11504400	Threemile Creek near Crystal, Oreg.	Lat 42°38'20", long 122°05'45", in SE¼ sec.3, T.34 S., R.6 E., Klamath County, at culvert on Forest Service road 3413A in Winema National Forest, 1.5 miles upstream from mouth, and 4 miles north of Crystal.	9.47	1965-71	1-17-71	13.97	550
11505550	Lost Creek near Rocky Point, Oreg.	Lat 42'29'35", long 122°11'30", in SE¼ sec.26, T.35 S., R.5 E., Klamath County, at culvert on Forest Service road 3561 in Winema National Forest, 1.5 miles east of Long Lake, and 5.5 miles west of Rocky Point.	13.2	1966-71	1-17-71	10.23	110
11509400	Klamath River tributary near Keno, Oreg.	Lat 42°07'50", long 121°57'50", in SW¼ sec.35, T.39 S., R.7 E., Klamath County, at culvert on State Highway 66, 0.3 mile upstream from mouth, 1.8 miles west of Keno, and 4.0 miles east of Klamath River bridge.	1.02	1964-71	1-17-71	12.54	10
		Owyhee River basin					
13177885	Pole Creek tributary near McDermitt, Nev.	Lat 42°09'02", long 117°23'36", in SW¼ sec.25, T.39 S., R.45 E., Malheur County, at culvert on BLM Star Valley Road, 19 miles northeast of McDermitt.	1.0	1971	1-17-71	7.05	77
13177890	Pole Creek tributary No. 2 near McDermitt, Nev.	Lat 42°09'29", long 117°25'00", in NW¼ sec.26, T.39 S., R.45 E., Malheur County, at culvert on BLM Star Valley Road, 19 miles northeast of McDermitt.	0.17	1971	1-17-71	5.07	5.0
13177895	Antelope Creek tributary near McDermitt, Nev.	Lat 42°15'55", long 117°31'45", in NW¼ sec.23, T.38 S., R.44 E., Malheur County, at culvert on BLM Star Valley Road, 21 miles northeast of McDermitt.	3.20	1971	1-17-71	13.76	132
13177980	Indian Creek near Jordan Valley, Oreg.	Lat 42°39'25", long 117°12'10", in NE¼ sec.28, T.33 S., R.45 E., Malheur County, at culvert on BLM Soldier Creek project road, 24 miles south of Jordan Valley.	4.12	1964-71	1-17-71	10.24	25
13182100	Dago Gulch near Rockville, Oreg.	Lat 43°17'37", long 117°15'14", in SW¼SE¼ sec.18, T.26 S., R.45 E., Malheur County, at culvert on Bureau of Land Management Lesle Gulch Road, 0.2 mile west of Runaway Creek, and 8 miles west of Rockville.	3.09	1970-71	6-30-70 1-17-71	12.69 12.41	*55 40
13182150	Long Gulch near Rockville, Oreg.	Lat 43°19'17", long 117°11'42", in NW¼NE¼ sec.10, T.26 S., R.45 E., Malheur County, at culvert on Bureau of Land Management Lesle Gulch Road, 1.3 miles upstream from Bannock Gulch, and 4 miles west of Rockville.	1.38	1970-71	1-17-71	9.89	11
		Malheur River basin					
13213900	Malheur River tributary near Drewsey, Oreg.	Lat 43°46'56", long 118°21'30", in S½ sec.36, T.20 S., R.35 E., Harney County, at culvert on county road to Drewsey, 200 feet north of U.S. Highway 20, and 2 miles south of Drewsey.	2.29	1964-71	1-19-71	9.64	46
13219300	Malheur River tributary near Harper, Oreg.	Lat 43°48'51", long 117°39'13", in SE¼ sec.23, T.20 S., R.41 E., Malheur County, at culvert on U.S. Highway 20, 4 miles southwest of Harper.	.10	1968-71	1-19-71	10.53	65
13228300	Lytle Creek near Vale, Oreg.	Lat 43°57'26", long 117°13'33", in SE¼ sec.32, T.18 S., R.45 E., Malheur County, at culvert on Lytle Boulevard, 2 miles south of Vale.	6.46	1968-71	1-17-71	11.50	220
13229400	Lost Valley Creek tributary near Ironside, Oreg.	Lat 44°18'50", long 117°54'10", in SW¼ sec.26, T.14 S., R.39 E., Malheur County, at culvert on U.S. Highway 26, 2.2 miles east of Ironside.	1.86	1966-71	1-19-71	7.21	13
13231700	Canyon Creek tributary near Brogan, Oreg.	Lat 44°15'50", long 117°37'15", in NW¼ sec.18, T.15 S., R.42 E., Malheur County, at culvert on U.S. Highway 26, 0.3 mile upstream from mouth, and 5.8 miles west of Brogan.	1.24	1967-71	-	-	(b)

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Moores Hollow basin					
13269200	Moores Hollow tributary near Weiser, Idaho	Lat 44°07'30", long 117°10'10", in SE¼SE¼ sec.18, T.16 S., R.46 E., Malheur County, at culvert on Interstate Highway 80N, 7.0 miles southeast of junction with U.S. Highway 30, and 8.0 miles southwest of Wieser.	.90	1964-71	10-23-71	20.77	52
		Burnt River basin					
13272300	Job Creek tributary near Unity, Oreg.	Lat 44°27'50", long 118°12'00", in S½ sec.5, T.13 S., R.37 E., Baker County, on State Highway 7, 100 feet north of U.S. Highway 26 junction, and 2 miles north of Unity.	-	1966-71	1-17-71	12.30	16
13274600	Burnt River tributary at Durkee, Oreg.	Lat 44°34'30", long 117°26'45", in SE¼ sec.28, T.11 S., R.43 E., Baker County, at culvert on Interstate Highway 80N, 0.6 mile upstream from mouth, and 0.8 mile southeast of Durkee.	1.80	1966-71	1-17-71	9.18	98
		Powder River basin					
13281800	Antone Creek near North Powder, Oreg.	Lat 44°58'40", long 118°09'40", in NE¼ sec.10, T.7 S., R.37 E., Baker County, at culvert on Forest Service road S73 in Wallowa-Whitman National Forest, 12 miles southwest of North Powder.	4.39	1965-71	-	-	(†)
13286300	Waterspout Creek near Baker, Oreg.	Lat 44°50'10", long 117°33'45", in SE¼ sec.28, T.8 S., R.42 E., Baker County, at culvert on State Highway 86, 14 miles east of Baker.	.96	1968-71	5-26-71	15.00	66
13289100	Immigrant Gulch near Richland, Oreg.	Lat 44°47'10", long 117°08'05", in NW¼ sec.18, T.9 S., R.46 E., Baker County, at culvert on State Highway 86, 1.9 miles northeast of Richland, and 2.0 miles above maximum flow line of Brownlee Reservoir.	6.64	1964-71	1-17-71	7.26	83
		Pine Creek basin					
13290150	North Pine Creek near Homestead, Oreg.	Lat 45°05'25", long 116°53'45", in NW¼ sec.31, T.5 S., R.48 E., Baker County, at culvert on Forest Service road S51, 300 ft upstream from Doe Creek, and 5 miles northwest of Homestead.	2.89	1965-71	5-26-71	11.93	140
		Imnaha River basin					
13291200	Mahogany Creek near Homestead, Oreg.	Lat 45°12'15", long 116°52'05", in NE¼ sec.19, T.4 S., R.48 E., Wallowa County, at culvert on Forest Service road S115 in Wallowa-Whitman National Forest, 500 feet upstream from mouth, and 12 miles north of Homestead.	4.00	1965-71	5- 7-71	12.44	134
13291400	Deer Creek near Imnaha, Oreg.	Lat 45°33'00", long 116°47'30", in SW¼ sec.23, T.1 N., R.48 E., Wallowa County, at culvert on Forest Service road N206 in Wallowa-Whitman National Forest, 2 miles southeast of Imnaha.	1.73	1965-71	5- 7-71	14.88	3.8
		Grande Ronde River basin					
13318100	McIntyre Creek near Starkey, Oreg.	Lat 45°19'40", long 118°26'55", in SE¼SE¼ sec.5, T.3 S., R.35 E., Union County, at culvert on Forest Service road S217 in Wallowa-Whitman Forest, 1.8 miles south of Union County line, and 7 miles north of Starkey.	1.80	1966-71	1-18-71	13.91	12
13320400	Little Creek at High Valley, near Union, Oreg.	Lat 45°12'45", long 117°46'30", in SW¼SE¼ sec.14, T.4 S., R.40 E., Union County, at county road bridge, 4 miles east of Union.	15.8	1948, 1952-53, 1957-71	1-19-71	10.13	54
13321300	Ladd Canyon near Hot Lake, Oreg.	Lat 45°11'36", long 118°00'48", on sec. line 23 and 24, T.4 S., R.38 E., Union County, at culvert on U.S. Highway 30, 4 miles southwest of Hot Lake, and 9 miles southeast of La Grande.	15.5	1953, 1958-71	1-17-71	20.00	147
13322300	Dry Creek near Bingham Springs, Oreg.	Lat 45°38'10", long 118°06'55", in NE¼SE¼ sec.24, T.2 N., R.37 E., Umatilla County, at culvert on Forest Service road N32 (Ruckel Road) in Umatilla National Forest, at Umatilla County line, 9 miles southeast of Bingham Springs.	1.37	1956-71	1-17-71	29.45	27

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Grande Ronde River basin--Continued							
13324150	Rysdam Canyon tributary near Minam, Oreg.	Lat 45°36'55", long 117°47'45", in NE¼ sec.34, T.2 N., R.40 E., Union County, at culvert on county road, 0.2 mile upstream from mouth, 3.5 miles west of Minam.	.99	1967-71	3-23-71	24.15	34
13329700	Trout Creek tributary near Chico, Oreg.	Lat 45°35'50", long 117°15'35", in center of sec.1, T.1 N., R.44 E., Wallowa County at culvert on State Highway 3, 0.2 mile upstream from mouth, 1.0 mile south of Wallowa-Whitman National Forest boundary and 9.5 miles southwest of Chico.	.26	1967-71	3-24-71	9.19	5.9
13329750	Trout Creek tributary near Enterprise, Oreg.	Lat 45°26'20", long 117°17'00", in NW¼ sec.35, T.1 S., R.44 E., Wallowa County, at culvert on State Highway 3, 0.9 mile north of junction with State Highway 82 in Enterprise.	4.38	1967-71	1-17-71	16.30	16
13333050	Buford Creek near Flora, Oreg.	Lat 45°53'25", long 117°17'00", on sec. line 23 and 26, T.5 N., R.44 E., Wallowa County, at two culverts on county road, 1.0 mile west of junction with State Highway 3, 1.5 miles southeast of Flora.	.40	1967-71	2-10-71	9.90	c27
13333100	Doe Creek near Imnaha, Oreg.	Lat 45°44'50", long 117°01'20", in NE¼ sec.14, T.3 N., R.46 E., Wallowa County, at culvert on Forest Service road N431 in Wallowa-Whitman National Forest, 0.1 mile north of Vigne Forest Camp, and 16 miles northwest of Imnaha.	5.20	1965-71	5-26-71	6.03	33
Walla Walla River basin							
14016080	Dry Creek tributary near Milton-Freewater, Oreg.	Lat 45°53'05", long 118°23'28", in NE¼ sec.26, T.5 N., R.35 E., Umatilla County, at culvert on State Highway 11, 2.6 miles south of Milton-Freewater.	1.22	1967-71	5-26-71	34.83	348
Cold Springs Canyon basin							
14019120	North Fork Cold Springs Canyon tributary at Holdman, Oreg.	Lat 45°52'40", long 118°55'10", in N½ sec.34, T.5 N., R.31 E., Umatilla County, at culvert on county road, at mouth, and 0.6 mile east of Holdman.	2.86	1967-71	9- 2-71	22.74	84
Umatilla River basin							
14019400	Elbow Creek near Bingham Springs, Oreg.	Lat 45°42'45", long 118°11'54", in NE¼ sec.28, T.3 N., R.37 E., Umatilla County, at culvert on Forest Service road N32 in Umatilla National Forest, 200 ft upstream from mouth, and 2.6 miles southeast of Bingham Springs.	.68	1965-71	1-17-71	11.84	44
14020800	Mission Creek at St. Andrews Mission, Oreg.	Lat 45°38'05", long 118°37'18", in SE¼ sec.24, T.2 N., R.33 E., Umatilla County, at culvert on county road, 0.1 mile east of St. Andrews School, and 8 miles east of Pendleton.	4.45	1958, 1963-71	1-17-71	14.99	22
14021600	Nelson Creek at Pendleton, Oreg.	Lat 45°40'56", long 118°48'24", on line between secs.3 and 4, T.2 N., R.32 E., Umatilla County, at culvert on U.S. Highway 395, 0.7 mile upstream from mouth, and 0.5 mile northwest of Pendleton.	2.56	1958-71	-	-	(b)
14032100	Butter Creek tributary near Pine City, Oreg.	Lat 45°38'30", long 119°24'50", in NW¼ sec.23, T.2 N., R.27 E., Umatilla County, at culvert on State Highway 19, 0.1 mile upstream from mouth, 1.8 miles north of county line, and 4.2 miles north of Pine City.	1.50	1948, 1963-71	-	-	(b)
Juniper Canyon basin							
14034240	Little Juniper Canyon near Pine City, Oreg.	Lat 45°33'32", long 119°36'00", in NE¼NW¼ sec.19, T.1 N., R.26 E., Morrow County, at culvert on county road, 8.0 miles west of Pine City.	4.87	1968-71	-	-	(b)
Willow Creek basin							
14034370	Willow Creek tributary near Heppner, Oreg.	Lat 45°13'40", long 119°20'00", in SW¼ sec.9, T.4 S., R.28 E., Morrow County, at culvert on Willow Creek Road, 300 ft above mouth, and 16.1 miles southeast of Heppner.	-	1958-71	-	-	(b)

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Willow Creek basin--Continued							
14034830	Cason Creek at Ruggs, Oreg.	Lat 45°15'50", long 119°41'05", in SW¼NE¼ sec.34, T.3 S., R.25 E., Morrow County, at culvert on Rhea Creek road, at junction with State Highway 207, at Ruggs.	2.21	1968-71	-	-	(b)
John Day River basin							
14036800	John Day River near Prairie City, Oreg.	Lat 44°19'10", long 118°33'25", in SE¼SW¼ sec.30, T.14 S., R.35 E., Grant County at culvert on Forest Service road 1427 in Malheur National Forest, 200 ft downstream from Call Creek, and 12 miles southeast of Prairie City.	17.4	1965-71	5-15-71	8.78	105
14038550	East Fork Canyon Creek near Canyon City, Oreg.	Lat 44°14'45", long 118°54'40", in NE¼ sec.30, T.15 S., R.32 E., Grant County, at culvert on Forest Service road 1451 in Malheur National Forest, at mouth, and 10 miles south of Canyon City.	24.8	1965-71	1-19-71	12.44	195
14038600	Vance Creek near Canyon City, Oreg.	Lat 44°17'20", long 118°58'50", in NE¼ sec.10, T.15 S., R.31 E., Grant County, at culvert on U.S. Highway 395, at confluence with South Fork, 1.0 mile upstream from mouth, and 9.5 miles south of Canyon City.	6.54	1964-71	4-13-71	12.00	17
14038750	Beech Creek near Fox, Oreg.	Lat 44°34'05", long 119°06'30", in SE¼ sec.33, T.11 S., R.30 E., Grant County, at culvert on U.S. Highway 395, at entrance to Beech Creek Forest Camp, and 6.8 miles south of Fox.	1.94	1965-71	-	-	(†)
14038900	Fields Creek near Mt. Vernon, Oreg.	Lat 44°23'35", long 119°18'25", in SE¼ sec.35, T.13 S., R.28 E., Grant County, at culvert on Forest Service road 1451 in Malheur National Forest, 0.3 mile upstream from Big Canyon and 10 miles west of Mt. Vernon.	17.5	1965-71	5-15-71	10.35	102
14039200	Venator Creek near Silvies, Oreg.	Lat 43°59'55", long 119°16'30", in NW¼ sec.20, T.18 S., R.29 E., Grant County, at culvert on Forest Service road 1877 in Malheur National Forest, 1.5 miles above mouth, and 16 miles west of Silvies.	11.9	1966-71	5- 2-71	11.68	61
14039400	Jackass Creek near Dayville, Oreg.	Lat 44°21'10", long 119°33'10", in SW¼ sec.13, T.14 S., R.25 E., Grant County, at culvert on BLM road (project no. 205), at mouth, 10.4 road miles south of Dayville.	3.95	1969-71	5-25-71	9.74	67
14040700	Whiskey Creek near Mitchell, Oreg.	Lat 44°31'21", long 119°55'18", in SE¼ sec.14, T.12 S., R.23 E., Wheeler County, at culvert on U.S. Highway 26, 13.6 miles east of Mitchell.	2.22	1968-71	1-17-71	12.40	88
14040900	Bruin Creek near Dale, Oreg.	Lat 44°53'51", long 118°47'35", in SW¼ sec.6, T.8 S., R.33 E., Grant County, at culvert on Forest Service road SA-12, 12 miles southeast of Dale.	4.63	1969-71	4-16-71	11.12	11
14041900	Line Creek near Lehman Springs, Oreg.	Lat 45°10'10", long 118°42'40", in NW¼ sec.3, T.5 S., R.33 E., Umatilla County, at culvert on Forest Service road 524 in Umatilla National Forest, 0.2 mile upstream from mouth, and 2 miles west of Lehman Springs.	2.40	1965-71	1-23-70 1-17-71	12.35 11.64	48 30
14043800	Bridge Creek near Prairie City, Oreg.	Lat 44°32'30", long 118°32'25", in NE¼ sec.7, T.12 S., R.35 E., Grant County, at culvert at intersection of Looney Springs Road and U.S. Highway 26, 3.1 miles east of Dixie Summit, and 13.4 miles east of Prairie City.	6.93	1964-71	5- 2-71	8.86	58
14043850	Cottonwood Creek near Galena, Oreg.	Lat 44°39'10", long 118°51'55", in SE¼ sec.33, T.10 S., R.32 E., Grant County, at culvert on Forest Service road 1015 in Malheur National Forest, 2.5 miles upstream from mouth, and 4 miles south of Galena.	3.89	1965-71	4-15-71	11.06	47
14043900	Granite Creek near Dale, Oreg.	Lat 44°53'40", long 119°00'50", in NW¼ sec.8, T.8 S., R.31 E., Grant County, at culvert on U.S. Highway 395, 4.7 miles north of bridge on Middle Fork John Day River, and 8.2 miles south of Dale.	1.90	1965-71	1-19-71	13.97	24
14044100	Paul Creek near Long Creek, Oreg.	Lat 44°43'26", long 119°07'54", in SE¼ sec.5, T.10 S., R.30 E., Grant County, at culvert on State Highway 207, 1.5 miles east of Long Creek.	3.50	1968-71	1-17-71	9.68	46

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
John Day River basin--Continued							
14045100	East Fork Cottonwood Creek near Hamilton, Oreg.	Lat 44°45'25", long 119°21'21", in SE¼ sec.28, T.9 S., R.28 E., Grant County, at culvert on State Highway 207, 2.7 miles northwest of Hamilton.	.78	1968-71	5- 2-71	12.14	15
14046250	Ives Canyon near Spray, Oreg.	Lat 44°51'35", long 119°42'50", in SE¼NE¼ sec.22, T.8 S., R.25 E., Wheeler County, at culvert on State Highway 207, 4 miles south of National Forest boundary, and 4 miles northeast of Spray.	2.73	1967-71	1-17-71	12.34	16
14046300	Big Service Creek near Service Creek, Oreg.	Lat 44°53'38", long 120°04'11", in NE¼NE¼ sec.10, T.8 S., R.22 E., Wheeler County, at culvert on State Highway 19, 7.8 miles north of Service Creek.	5.56	1968-71	1-26-71	6.95	3.5
14046400	Donnely Creek tributary near Service Creek, Oreg.	Lat 44°46'20", long 120°00'10", in SE¼ sec.19, T.9 S., R.23 E., Wheeler County, at two culverts on State Highway 207, 1.8 miles south of Service Creek.	1.85	1964-71	1-17-71	9.96	12
14046650	West Branch Bridge Creek tributary near Mitchell, Oreg.	Lat 44°33'07", long 120°20'25", in SW¼ sec.4, T.12 S., R.20 E., Wheeler County, at culvert on U.S. Highway 26, 11.5 miles west of Mitchell.	.20	1968-71	-	-	(b)
14046900	John Day River tributary near Clarno, Oreg.	Lat 44°54'20", long 120°34'05", in NE¼ sec.4, T.8 S., R.18 E., Wasco County, at culvert on State Highway 218, 5 miles west of Clarno, and 8 miles east of Antelope.	1.36	1969-71	1-17-71	26.64	65
14047350	Rock Creek tributary near Hardman, Oreg.	Lat 45°04'40", long 119°34'10", in NE¼ sec.2, T.6 S., R.26 E., Morrow County, at culvert on Forest Service road 618 in Umatilla National Forest, 0.5 mile upstream from mouth, and 8.5 miles southeast of Hardman.	6.25	1965-71	1-17-71	13.45	88
14047450	Dry Fork tributary near Gooseberry, Oreg.	Lat 45°17'12", long 119°57'53", in SE¼SE¼ sec.20, T.3 S., R.23 E., Morrow County, at culvert on State Highway 206, 3.5 miles west of Gooseberry, and 10 miles northeast of Condon.	1.31	1967-71	6-10-71	7.01	11
14048020	Grass Valley Canyon near Grass Valley, Oreg.	Lat 45°22'25", long 120°46'27", on sec. line 23 and 26, T.2 S., R.16 E., Sherman County, at culvert on county road, 1 mile northeast of Grass Valley.	8.15	1958-71	1-17-71	15.39	90
14048040	Gordon Hollow at DeMoss Springs, Oreg.	Lat 45°30'50", long 120°40'55", in NW¼ sec.3, T.1 S., R.17 E., Sherman County, at culvert on U.S. Highway 97 at DeMoss Springs.	8.86	1959-71	1-17-71	10.14	230
Spanish Hollow basin							
14048300	Spanish Hollow at Wasco, Oreg.	Lat 45°35'20", long 120°41'40", in NE¼ sec.9, T.1 N., R.17 E., Sherman County, at culvert on street in southeast Wasco, 1 block east of U.S. Highway 97.	8.05	1959-71	1-18-71	4.09	78
14048310	Spanish Hollow tributary at Wasco, Oreg.	Lat 45°35'30", long 120°42'55", on sec. line 5 and 8, T.1 N., R.17 E., Sherman County, on State Highway 206, 0.9 mile west of junction of Highway 97 in Wasco.	6.13	1967-71	1-17-71	9.42	63
Deschutes River basin							
14077800	East Fork Wolf Creek near Paulina, Oreg.	Lat 44°16'50", long 119°48'50", in SW¼SW¼ sec.11, T.15 S., R.24 E., Crook County, at culvert on Forest Service road 1438 in Ochoco National Forest, 1.7 miles south of Crook County line, 13 miles northeast of Paulina.	2.02	1965-71	1-17-71	8.64	56
14078200	South Fork Crooked River tributary near Hampton, Oreg.	Lat 43°35'20", long 119°59'00", in SW¼ sec.8, T.23 S., R.23 E., Lake County, at culvert on U.S. Highway 20, in Glass Mountain conservation area, and 15.5 miles east of Hampton.	19.6	1965-71	1-17-71	8.00	31
14078300	Crooked River tributary near Paulina, Oreg.	Lat 44°06'36", long 120°10'39", in SW¼ sec.11, T.17 S., R.21 E., Crook County, at culvert on State Highway 380, 13.2 miles west of Paulina.	5.10	1968-71	1-17-71	13.94	48
14078400	Lookout Creek near Post, Oreg.	Lat 44°18'40", long 120°14'24", in SW¼ sec.32, T.14 S., R.21 E., Crook County, at culvert on Forest Service Road 143 in Ochoco National Forest, and 16 miles northeast of Post.	7.53	1966-71	1-17-71	8.02	60
14079750	Crooked River tributary near Post, Oreg.	Lat 44°10'42", long 120°34'06", in SE¼ sec.16, T.16 S., R.18 E., Crook County, at culvert on county road, 5.4 miles west of Post.	.30	1968-71	1-17-71	10.45	8.9

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Deschutes River basin--Continued					
14080100	Bear Creek tributary near Brothers, Oreg.	Lat 43°56'17", long 120°34'51", in SE¼NE¼ sec.8, T.19 S., R.18 E., Crook County, at culvert on BLM Bear Creek road, 9 miles north of Brothers.	0.86	1971	1-17-71	4.22	47
14080200	Sage Hollow near Brothers, Oreg. (discontinued).	Lat 43°59'16", long 120°42'17", in SW¼SW¼ sec.21, T.18 S., R.17 E., Crook County, at culvert on Bear Creek road, at mouth, and 13 miles northwest of Brothers.	38.8	1971	1-17-71	-	1,300
14080300	Bear Creek tributary near Millican, Oreg.	Lat 44°03'40", long 120°44'20", near sec. lines 30 and 31, T.17 S., R.17 E., Crook County at culvert on State Highway 27, 15 miles northeast of Millican.	6.59	1969-71	1-17-71	9.44	92
14080600	Dry Creek near Prineville, Oreg.	Lat 44°12'12", long 120°45'36", in NW¼ sec.12, T.16 S., R.16 E., Crook County, at culvert on Juniper Canyon road, 8 miles southeast of Prineville.	[a]14.5	1968-71	1-17-71	18.58	513
14081800	Ahalt Creek near Mitchell, Oreg.	Lat 44°26'00", long 120°21'05", in NE¼ sec.20, T.13 S., R.20 E., Crook County, at culvert on Forest Service road 1222, 200 ft upstream from mouth.	2.28	1956-71	1-17-71	7.95	45
14082400	Wildcat Creek near Prineville, Oreg.	Lat 44°24'47", long 120°30'00", in NW¼ sec.30, T.13 S., R.19 E., Crook County, at culvert on U.S. Highway 26, 18.5 miles northeast of Prineville.	3.66	1968-71	1-17-71	11.14	24
14084400	Ochoco Reservoir tributary near Prineville, Oreg.	Lat 44°18'09", long 120°43'00", in NW¼ sec.5, T.15 S., R.17 E., Crook County, at culvert on U.S. Highway 26, 6 miles east of Prineville.	.63	1968-71	1-17-71	6.50	12
14087100	Lone Pine Creek tributary near Prineville, Oreg.	Lat 44°24'56", long 121°00'16", in NW¼NW¼ sec.25, T.13 S., R.14 E., Jefferson County, at culvert on U.S. Highway 26, 11.3 miles northwest of Prineville.	1.02	1968-71	1-17-71	13.51	26
14092300	Willow Creek tributary near Culver, Oreg.	Lat 44°30'38", long 121°04'15", in SE¼ sec.20, T.12 S., R.14 E., Jefferson County, at culvert on U.S. Highway 26, in Crooked River National Grasslands, 0.4 mile upstream from mouth, and 7 miles east of Culver.	7.47	1965-71	1-17-71	10.06	14
14093700	Trout Creek tributary at Ashwood, Oreg.	Lat 44°44'10", long 120°45'10", in SW¼ sec.36, T.9 S., R.16 E., Jefferson County, at culvert on county road, 0.1 mile upstream from mouth, and 0.3 mile north of Ashwood.	[a]1.9	1959-71	1-17-71	4.90	2.5
14094300	Cow Canyon Creek near Antelope, Oreg.	Lat 44°50'35", long 120°55'40", in NW¼SW¼ sec.27, T.8 S., R.15 E., Jefferson County, at culvert on U.S. Highway 97, 2.6 miles north of Willowdale. and 11 miles southwest of Antelope.	2.71	1959-71	1-17-71	24.96	2.6
14095200	Sagebrush Creek tributary near Gateway, Oreg.	Lat 44°45'33", long 121°02'02", in SE¼NE¼ sec.27, T.9 S., R.14 E., Jefferson County, at culvert on former U.S. Highway 97, 1 mile upstream from mouth and 11 miles north of Madras.	[a]7.4	1957-71	-	-	(b)
14100800	Jordon Creek near Tygh Valley, Oreg.	Lat 45°20'27", long 121°20'45", in SW¼NE¼ sec.6, T.3 S., R.12 E., Wasco County, at culvert on Forest Service road S207 in Mt. Hood National Forest, 10.5 miles northwest of Tygh Valley.	9.01	1965-71	1-17-71	12.52	89
14102300	Box Elder Canyon near Grass Valley, Oreg.	Lat 45°21'37", long 120°54'10", in SW¼ sec.26, T.2 S., R.15 E., Sherman County, at culvert on BLM Deschutes River access road, at mouth, and 6 miles west of Grass Valley.	2.21	1971	1-17-71	13.06	178
		Fifteenmile Creek basin					
14104100	Ramsey Creek near Dufur, Oreg.	Lat 45°24'03", long 121°22'27", in NW¼ sec.13, T.2 S., R.11 E., Wasco County, at culvert on Forest Service road S207 in Mt. Hood National Forest, 12 miles west of Dufur.	3.87	1965-71	1-17-71	11.16	39
		Willamette River basin					
14144870	Middle Fork Willamette River tributary near Oakridge, Oreg.	Lat 43°40'20", long 122°26'00", in SW¼ sec.10, T.22 S., R.3 E., Lane County, at culvert on Rigdon Road, 400 ft upstream from flow line of Hills Creek Reservoir, and 5.0 miles south of Oakridge.	.50	1960-71	1-17-71	16.54	43

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Willamette River basin--Continued					
14145690	Swamp Creek near McCredie Springs, Oreg.	Lat 43°39'40", long 122°12'45", in SE¼ sec.16, T.22 S., R.5 E., Lane County, at culvert on Forest Service road 2156 in Willamette National Forest, 0.7 mile upstream from mouth, and 6 miles southeast of McCredie Springs.	1.51	1965-71	1-18-71	8.64	28
14147400	Tumble Creek near Westfir, Oreg.	Lat 43°52'50", long 122°22'30", in N½NE¼ sec.31, T.19 S., R.4 E., Lane County, at culvert on Forest Service road 196 in Willamette National Forest, at mouth, and 10.5 miles northeast of Westfir.	1.52	1965-71	1-18-71	9.41	77
14148700	Fern Creek near Lowell, Oreg.	Lat 43°51'50", long 122°41'05", in W½NW¼ sec.3, T.20 S., R.1 E., Lane County, at culvert on State Highway 58, at mouth, and 6 miles southeast of Lowell.	.44	1953-71	12-16-70	5.24	19
14158950	Twisty Creek near Belknap Springs, Oreg.	Lat 44°13'30", long 122°02'35", in NE¼ sec.35 (unsurveyed), T.15 S., R.6 E., Lane County, at culvert on Forest Service road 1558 in Willamette National Forest, 0.8 mile upstream from mouth, and 2.5 miles north of Belknap Springs.	1.18	1965-71	1-17-71	21.35	70
14169700	Bear Creek near Cheshire, Oreg.	Lat 44°09'30", long 123°21'10", in SE¼ sec.24, T.16 S., R.6 W., Lane County, at culvert on State Highway 36 and 4.2 miles southwest of Cheshire.	5.19	1956-71	1-18-71	20.50	325
14178600	Short Creek at Breitenbush Hot Springs, Oreg.	Lat 44°47'10", long 121°58'55", in S½SW¼ sec.17, T.9 S., R.7 E., Marion County, at culvert on Forest Service road S906 in Willamette River National Forest, 0.5 mile above mouth and 0.5 mile northwest of Breitenbush Hot Springs.	2.00	1965-71	1-17-71	8.18	112
14178800	Wind Creek near Detroit, Oreg.	Lat 44°45'20", long 122°07'10", in NE¼ sec.31, T.9 S., R.6 E., Marion County, at culvert on Breitenbush River road, 0.1 mile upstream from mouth, and 2 miles northeast of Detroit.	1.03	1954-71	1-17-71	10.96	93
14184900	Sheek Creek near Cascadia, Oreg.	Lat 44°23'25", long 122°30'25", in SW¼SE¼ sec.36, T.13 S., R.2 E., Linn County, at culvert on U.S. Highway 20 at Cascadia ranger station, 0.1 mile upstream from mouth, and 1.5 miles west of Cascadia.	0.89	1953-71	1-17-71	14.03	59
14185850	Little Meadow Creek near Detroit, Oreg.	Lat 44°35'15", long 122°13'50", in SW¼ sec.29, T.11 S., R.5 E., (unsurveyed), Linn County, at culvert on Forest Service road 1177 in Willamette National Forest, 0.2 mile upstream from mouth, and 11 miles south of Detroit.	1.29	1966-71	1-17-71	22.23	34
14190600	Soap Creek tributary near Suver, Oreg.	Lat 44°42'00", long 123°13'10", in SW¼NE¼ sec.18, T.10 S., R.4 E., Benton County, at culvert on U.S. Highway 99 W., 1.2 miles south of Polk County line and 3 miles south of Suver.	.57	1953-71	1-17-71	3.91	55
14192100	Glenn Creek near Salem, Oreg.	Lat 44°57'05", long 123°05'00", in SE¼NW¼ sec.20, T.7 S., R.3 W., Polk County, at culvert on Glenn Creek road, 1.5 miles northwest of Salem.	2.72	1952-71	1-17-71	16.93	69
14192800	South Yamhill River tributary near Willamina, Oreg.	Lat 45°02'38", long 123°28'20", in SW¼ sec.18, T.6 S., R.6 W., Polk County, at culvert on State Highway 22, 2.2 miles upstream from mouth, and 3 miles southeast of Willamina.	1.81	1954-71	1-17-71	11.54	187
14204100	Bateman Creek near Glenwood, Oreg.	Lat 45°37'30", long 123°15'40", in SW¼ sec.26, T.2 N., R.5 W., Washington County, at culvert on State Highway 6, at mouth, 1.5 miles south of Glenwood.	1.27	1952-71	1-17-71	11.20	36
14207920	Poop Creek near Big Bottom, Oreg.	Lat 44°58'35", long 121°50'35", in SW¼ sec.9 (unsurveyed), T.7 S., R.8 E., Clackamas County, at culvert on Forest Service road S650 in Mt. Hood National Forest, at mouth, and 3 miles southeast of Big Bottom.	1.74	1966-71	1-17-71	11.74	9.8
14208200	Collawash River tributary near Breitenbush Hot Springs, Oreg.	Lat 44°55'50", long 122°00'40", in NE¼SE¼ sec.25, T.7 S., R.6 E., Marion County, at culvert on Forest Service road S63, 0.5 mile north of Russ Creek, and 10 miles north of Breitenbush Hot Springs.	.39	1966-71	1-17-71	27.76	32
14208850	East Fork Shellrock Creek near Government Camp, Oreg.	Lat 45°08'30", long 121°53'55", in NW¼ sec.13, T.5 S., R.7 E., Clackamas County, at culvert on Forest Service road 58B in Mt. Hood National Forest, 5 miles west of Timothy Lake, and 13.5 miles southwest of Government Camp.	2.30	1965-71	1-17-71	11.12	45

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Willamette River basin--Continued							
14209100	Kink Creek near Government Camp, Oreg.	Lat 45°04'13", long 121°57'45", in SW¼ sec.4, T.6 S., R.7 E., Clackamas County, at culvert 0.1 mile downstream from Kelly Creek, 0.2 mile upstream from mouth at Lake Harriet on the Oak Grove Fork Clackamas River, and 19 miles southwest of Government Camp.	3.75	1957-71	1-18-71	17.27	77
14209750	Whisky Creek near Estacada, Oreg.	Lat 45°12'50", long 122°09'30", in E½NW¼ sec.23, T.4 S., R.5 E., Clackamas County, at culvert on Forest Service road S457 in Mt. Hood National Forest, 0.1 mile upstream from mouth, and 10 miles southeast of Estacada.	1.06	1965-71	1-17-71	14.95	78
14209900	DuBois Creek at Estacada, Oreg.	Lat 45°16'55", long 122°20'35", in NW¼ sec.29, T.3 S., R.4 E., Clackamas County, at culvert 0.4 mile upstream from mouth, and 0.5 mile southwest of Estacada.	2.52	1957-71	1-19-71	17.16	67
14211800	Saltzman Creek at Portland, Oreg.	Lat 45°33'55", long 122°44'40", in SE¼SE¼ sec.13, T.1 N., R.1 W., Multnomah County, at culvert at intersection of N.W. Balboa and Culebra Streets in Portland, 430 feet downstream from U.S. Highway 30, and 0.3 mile upstream from mouth.	1.46	1952-71	1-17-71	12.30	113
Asbury Creek basin							
14299500	Asbury Creek near Cannon Beach, Oreg.	Lat 45°48'55", long 123°57'50", in SW¼ sec.19, T.4 N., R.10 W., Clatsop County, at culvert on U.S. Highway 101, at Arch Cape, 0.1 mile upstream from mouth and 6 miles south of Cannon Beach.	1.97	1952-71	1-25-71	9.30	285
Nehalem River basin							
14300400	Fishhawk Creek near Jewel, Oreg.	Lat 45°58'45", long 123°36'10", in NW¼NW¼ sec.30, T.6 N., R.7 W., Clatsop County, at two culverts on State Highway 202, 6.5 miles northwest of Jewel.	0.71	1971	1-17-71	18.90	93
Little Nestucca River basin							
14303650	Squaw Creek near Neskowin, Oreg.	Lat 45°06'56", long 123°53'41", in NW¼ sec.27, T.5 S., R.10 W., Tillamook County, at culvert on Forest Service road S533 in Siuslaw National Forest, 1 mile upstream from mouth, and 4 miles east of Neskowin.	2.11	1965-71	1-25-71	15.18	222
Salmon River basin							
14303700	Alder Brook near Rose Lodge, Oreg.	Lat 45°01'20", long 123°51'10", in SE¼ sec.25, T.6 S., R.10 W., Tillamook County, at culvert on State Highway 18, 0.1 mile upstream from mouth, and 1.5 miles northeast of Rose Lodge.	1.09	1954-71	12-30-70	11.92	93
Alsea River basin							
14306830	Lyndon Creek near Waldport, Oreg.	Lat 44°27'02", long 123°58'50", in SE¼ sec.11, T.13 S., R.11 W., Lincoln County, at culvert on Forest Service road 1245 in Siuslaw National Forest, 0.9 mile upstream from mouth, and 4 miles northeast of Waldport.	.90	1965-71	12-30-70	6.47	42
Mill Creek basin							
14306880	Mill Creek near Yachats, Oreg.	Lat 44°13'15", long 124°06'30", in NE¼ sec.34, T.15 S., R.12 W., Lane County, at culvert on Forest Service road 1571 in Siuslaw National Forest, 0.2 mile upstream from mouth, and 7 miles south of Yachats.	1.65	1966-71	4- 9-71	10.38	121
Siuslaw River basin							
14306920	Siuslaw River near Lorane, Oreg.	Lat 43°51'05", long 123°22'10", in NE¼ sec.11, T.20 S., R.6 W., Lane County, on left bank ½ mile below Siuslaw Falls, 0.4 mile downstream from Russell Creek, 7 miles northwest of Lorane, and at mile 99.3.	81.8	1968-71	1-16-71	15.76	2,940

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Siuslaw River basin--Continued					
14306940	Siuslaw River at Alma, Oreg.	Lat 43°52'55", long 123°29'30", in NE¼ sec.35, T.19 S., R.7 W., Lane County, on right and left banks 0.8 mile above Haight Creek, 1 mile southwest of Alma, and at mile 80.8.	120	1968-71	1-17-71	16.44	5,330
14306960	Esmond Creek near Austa, Oreg.	Lat 43°54'55", long 123°38'40", in NE¼ sec.16, T.19 S., R.8 W., Lane County, on right bank, 200 ft below Leopold Creek, 6.2 miles south of Austa, and at mile 1.68.	15.6	1968-71	1-16-71	8.06	2,690
14306980	Wolf Creek near Austa, Oreg.	Lat 43°58'00", long 123°36'30", in NW¼ sec.36, T.18 S., R.8 W., Lane County, on right bank 1.1 miles below Saleratus Creek, 3.3 miles southeast of Austa, and 1.5 miles above mouth.	59.0	1968-71	1-16-71	11.01	4,220
14307020	Chickahominy Creek near Walton, Oreg.	Lat 44°01'55", long 123°35'20", in SW¼ sec.6, T.18 S., R.7 W., Lane County, on left bank 0.2 mile above mouth, and 0.4 mile west of Walton.	12.5	1968-71	1-16-71	8.04	873
14307050	Wildcat Creek near Austa, Oreg.	Lat 43°59'35", long 123°37'20", in NW¼ sec.23, T.18 S., R.8 W., Lane County, on right bank 1.0 mile below Fowler Creek, 1.5 miles southeast of Austa and 3.1 miles above mouth.	51.9	1968-71	1-17-71	8.93	5,240
14307500	Lake Creek at Triangle Lake, Oreg.	Lat 44°09'40", long 123°34'10", in SW¼ sec.20, T.16 S., R.7 W., Lane County, on right bank 600 feet downstream from outlet of Triangle Lake, and at mile 18.81.	52.5	1931-55‡ 1968-71	3-12-71	6.15	2,640
14307570	Deadwood Creek near Deadwood,,Oreg.	Lat 44°06'3[illegible], long 123°45'05", in SW¼NE¼ sec.10, T.17 S., R.9 W., Lane County, on left bank 1.0 mile north of Deadwood and 4.0 miles above mouth.	57.4	1968-71	1-17-71	12.32	4,500
14307600	Indian Creek near Rainrock, Oreg.	Lat 44°06'45", long 123°50'55", in NE¼ sec.11, T.17 S., R.10 W., Lane County, on left bank 150 ft above Elk Creek, 2.6 miles north of Rainrock, and 7.71 miles above mouth.	37.0	1968-71	11-24-70	9.71	3,500
14307610	Siuslaw River tributary near Rainrock, Oreg.	Lat 44°04'00", long 123°52'45", in NW¼ sec.27, T.17 E., R.10 W., Lane County, at culvert on State Highway 36, at mouth, and 1.3 miles west of Rainrock.	.42	1957-71	4- 9-71	6.99	25
14307625	Knowles Creek near Mapleton, Oreg.	Lat 44°01'40", long 123°50'10", in NE¼ sec.12, T.18 S., R.10 W., Lane County, on right bank 1.0 miles east of Mapleton, 1.2 miles downstream from Jackson Creek, 3.0 miles southwest of Swisshome, and at mile 2.8.	17.7	1968-71	12-31-70	7.74	2,520
14307630	Sweet Creek near Beck, Oreg.	Lat 43°59'10", long 123°54'10", in NW¼ sec.28, T.18 S., R.10 W., Lane County, on both banks 1.3 miles downstream from Cedar Creek, 3.4 miles southwest of Mapleton and 3.3 miles upstream from mouth.	19.8	1968-71	12-30-70	6.36	1,740
14307640	Sam Creek near Minerva, Oreg.	Lat 44°09'08", long 123°56'49", in NE¼ sec.25, T.16 S., R.11 W., Lane County, at culvert on Forest Service road 1658 in Siuslaw National Forest, 5.5 miles north of Minerva.	2.58	1965-71	1-16-71	12.01	380
14307648	Condon Creek near Minerva, Oreg.	Lat 44°03'20", long 124°00'30", in NE¼ sec.33, T.17 S., R.11 W., Lane County, on right bank 1.5 miles downstream from Billie Creek, 2.5 miles southwest of Minerva and 1.3 miles above mouth.	9.91	1968-71	12-31-70	5.51	1,360
		Umpqua River basin					
14307685	Mult Creek near Tiller, Oreg.	Lat 43°06'00", long 122°44'55", in SW¼ sec.30, T.28 S., R.1 E., Douglas County, at culvert on Forest Service road 2719 in Umpqua National Forest, at mouth, and 15.5 miles northeast of Tiller.	2.65	1965-71	1-17-71	13.10	349
14308950	Beaver Creek near Drew, Oreg.	Lat 42°48'40", long 122°59'30", in NE¼NE¼ sec.12, T.32 S., R.3 W., Douglas County, at culvert on Forest Service road 3232 in Umpqua National Forest, 0.2 mile upstream from mouth and 7 miles southwest of Drew.	1.61	1965-71	1-17-71	9.26	81
14312100	Parrott Creek at Roseburg, Oreg.	Lat 43°11'45", long 123°20'50", in NE¼ sec.25, T.27 S., R.6 W., Douglas County, at culvert on Starmer Street between Marsters and Booth Streets in Roseburg, 0.5 mile upstream from mouth.	2.42	1952-71	1-17-71	12.07	127

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Umpqua River basin--Continued					
14312700	Thielsen Creek near Diamond Lake, Oreg.	Lat 43°13'10", long 122°08'15", in SW¼ sec.17, T.27 S., R.6 E., (unsurveyed), Douglas County, at culvert on State Highway 209 in Umpqua National Forest, and 3 miles north of resort of Diamond Lake.	12.2	1966-71	1-17-71	10.75	42
14316600	Dog Creek near Idleyld Park, Oreg.	Lat 43°17'55", long 122°38'19", in NE¼ sec.26, T.26 S., R.1 E., Douglas County, at culvert on State Highway 138 in Umpqua National Forest, at mouth, 6.5 miles southeast of Steamboat ranger station, and 19 miles east of Idleyld Park.	3.93	1965-71	1-17-71	12.23	600
14316650	Fugawee Creek near Disston, Oreg. (discontinued).	Lat 43°30'15", long 122°37'40", in NE¼ sec.12, T.24 S., R.1 E., Lane County, at culvert on Forest Service road 2623 in Umpqua National Forest, at mouth, and 15 miles southeast of Disston.	2.01	1965-71	1-17-71	15.50	352
14317700	White Creek near Peel, Oreg.	Lat 43°13'20", long 122°51'10", in NW¼ sec 17, T.27 S., R.1 W., Douglas County, at culvert on Forest Service road 276 in Umpqua National Forest, 0.6 mile upstream from mouth, and 9.5 miles east of Peel.	3.92	1965-71	1-17-71	11.19	275
14320600	Cabin Creek tributary near Oakland, Oreg.	Lat 43°26'10", long 123°18'45", in SE¼ sec.32, T.24 S., R.5 W., Douglas County, at culvert on U.S. Highway 99, 0.2 mile upstream from mouth, and 1.0 mile northwest of Oakland.	1.28	1957-71	1-17-71	12.06	175
14322850	Sawyer Creek near Elkton, Oreg.	Lat 43°35'56", long 123°40'12", in NW¼SE¼ sec.5, T.23 S., R.8 W., Douglas County, at culvert on BLM Sawyer Creek road, 6 miles southwest of Elkton.	0.30	1971	1-17-71	9.43	33
14323020	Buck Creek tributary near Scottsburg, Oreg.	Lat 43°35'30", long 123°46'00", in SE¼SE¼ sec.9, T.23 S., R.9 W., Douglas County, at culvert on Buck Creek road, at mouth, and 3 miles south of Scottsburg.	0.05	1971	1-17-71	8.96	9.2
14323170	Smith River tributary near Gardiner, Oreg.	Lat 43°44'35", long 124°02'30", in NW¼SW¼ sec.11, T.21 S., R.11 W., Douglas County, at culvert on Smith River road, 3.3 miles east of Gardiner.	0.15	1971	1-17-71	8.32	5.0
		Tenmile Creek basin					
14323300	Eel Creek at Lakeside, Oreg.	Lat 43°34'50", long 124°11'00", in SE¼SE¼ sec.13, T.23 S., R.13 W., Coos County, at Lakeside Junction 0.4 mile west of Lakeside.	11.0	1958-71	1-19-71	2.99	206
		Coos River basin					
[illegible]	Daggett Creek near Allegany, Oreg.	[illegible]	[illegible]	1971	[illegible]	[illegible]	58
		Coquille River basin					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1971	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1971	[illegible]	[illegible]	[illegible]
		[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

See footnote at end of table.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Brush Creek basin					
14327400	Dry Run Creek near Port Orford, Oreg.	Lat 42°41'20", long 124°26'00", in NW¼ sec.25, T.33 S., R.15 W., Curry County, at culvert in Humbug Mountain State Park and 5 miles southeast of Port Orford.	.86	1954-71	1-18-71	-	213
		Rogue River basin					
14327490	National Creek near Union Creek, Oreg.	Lat 43°00'15", long 122°21'50", in S½ sec.32 T.29 S., R.4 E., Douglas County, at culvert on Forest Service road 2967 in Rogue River National Forest, 0.3 mile upstream from mouth, and 9 miles northeast of town of Union Creek.	19.3	1965-71	1-17-71	19.07	168
14333490	Elkhorn Creek near Prospect, Oreg.	Lat 42°47'18", long 122°23'55", in SW¼NW¼ sec.18, T.32 S., R.4 E., Jackson County, at culvert on Forest Service road 3227 in Rogue River National Forest, 0.2 mile upstream from the mouth, and 5.2 miles northeast of Prospect.	1.50	1965-71	-	-	(†)
14335080	Fireline Creek near Butte Falls, Oreg.	Lat 42°36'10", long 122°24'10", in SE¼ sec.36, T.34 S., R.3 E., Jackson County, at culvert on Forest Service road 3520B in Rogue River National Forest, 0.8 mile upstream from mouth, and 8 miles east of Butte Falls.	4.77	1965-71	3-25-71	9.36	66
14350900	Neil Creek above Dunn Ditch, near Ashland, Oreg. *	Lat 42°08'05", long 122°38'05", in SW¼ sec.31, T.39 S., R.2 E., Jackson County, at culvert on U.S. Highway 99 (abandoned) in Rogue River National Forest, 4.5 miles southeast of Ashland.	10.3	1965-71	1-18-71	9.77	110
[illegible]	Butler Creek near Ashland, Oreg.	Lat 42°13'30", long 122°44'05", in NE¼ sec.31, T.38 S., R.1 E., Jackson County, at culvert on Interstate Highway 5, 0.3 mile upstream from mouth, and 1.6 miles southeast of Ashland.	5.11	1963-71	1-18-71	22.53	165
[illegible]	Jones Creek near Grants Pass, Oreg.	Lat 42°26'10", long 123°17'10", in SE¼ sec.36, T.36 S., R.6 W., Josephine County, at culvert on Interstate Highway 5 and traffic interchange for Foothill Boulevard, and 2 miles east of Grants Pass.	7.41	1952-71	1-17-71	10.90	671
[illegible]	Kinney Creek near McKee Bridge, Oreg.	[illegible] Jackson County, at culvert on Forest Service road [illegible] in Rogue River National Forest, [illegible] miles upstream from mouth, and [illegible] miles southeast of McKee Bridge.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Creek near Holland, Oreg.	[illegible] Josephine County, at culvert on Forest Service road [illegible] in Siskiyou National Forest, [illegible] mile upstream from mouth, [illegible] miles north of Oregon Caves National Monument, and [illegible] miles east of Holland.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Creek near Selma, Oreg.	[illegible] Josephine County, at culvert on county road, [illegible] mile above mouth and [illegible] miles east of Selma.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible]					
[illegible]	[illegible] Creek near Gold Beach, Oreg.	[illegible] Curry County, at culvert on Forest Service road [illegible] in Siskiyou National Forest, [illegible] miles east of Gold Beach.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible]					
[illegible]	[illegible] Creek near Brookings, Oreg.	[illegible] Curry County, at culvert on U.S. Highway 101, [illegible] mile upstream from mouth, and [illegible] miles northwest of Brookings.	[illegible]	[illegible]	[illegible] [illegible] [illegible] [illegible]	[illegible] [illegible] [illegible] [illegible]	[illegible] [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Measurements of streamflow at point, other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*), measurements of peak flow by a dagger (†).

Discharge measurements at miscellaneous sites during water year 1971

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 10		Malheur and Harney Lakes basin				
Malheur Lake outlet	Harney Lake	Sec.26, T.26 S., R.31 E.	a2,150	1916‡, 1943, 1952-53, 1955-60, 1964-66	4-27-71	85.5
Part 11		Klamath River basin				
Big Springs Creek	Williamson River in Klamath Marsh	SE¼ sec.22, T.30 S., R.8 E.	a80	1915-27, 1930, 1949-56, 1956-57, 1959-62, 1964-70	9-28-71	*36.6
Williamson River	Upper Klamath Lake	NW¼ sec.2, T.34 S., R.7 E.	a1,330	1912-13‡, 1917-25‡, 1942, 1949-56, 1956, 1959-62, 1964-70	9-28-71	*27.3
Lathin Creek	Williamson River	NW¼ sec.11, T.34 S., R.7 E.	(b)	1924-25, 1930-53, 1956, 1957-62, 1964-70	9-29-71	*11.5
[illegible] Creek	...... do	SE¼SE¼ sec.10, T.34 S., R.7 E.	(b)	1964-70	9-28-71	*10.7
Spring Creek	...... do	SE¼ sec.9, T.34 S., R.7 E.	21.0	[illegible]	9-28-71	*315
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	...... do	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	...... do	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	...... do	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

See footnotes at end of table.

Discharge measurements at miscellaneous sites during water year 1971

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 11		Klamath River basin--Continued				
Fort Creek	Wood River	SW¼ sec.26, T.33 S., R.7½ E.	(b)	1906-11, 1915-18, 1920-21, 1923-25, 1927-29, 1931, 1949-53, 1955-56, 1959-70	9-28-71	*89.9
Spencer Creek	Klamath River	SW¼ sec.20, T.39 S., R.7 E.	a90	1927, 1929-32‡, 1934, 1949-53, 1955-56, 1959-70	9-29-71	*47.5
Part 14		Deschutes River basin				
Deschutes River	Columbia River	[illegible]sec.28, T.21 S., R.8 E.	256	1938-49‡, 1950, 1952-57, 1960-70	10-16-70 12-17-70 2- 8-71 3-25-71 5- 7-71 6-24-71 8- 2-71 9-16-71	<634 <369 <369 <346 <438 <862 <993 <1,010
Davis Creek	Deschutes River	[illegible]sec.8, T.22 S., R.8 E.	161	1906, 1916, 1922-26, 1934, 1942, 1944-46, 1948-53, 1955, 1959-62, 1966-68, 1970	10-21-71	213
[illegible]	[illegible]	[illegible]sec.22, T.13 S., R.9 E.	-	-	10- 7-70	[illegible]
[illegible]	[illegible]	[illegible]sec.22, T.13 S., R.9 E.	-	-	10- 7-70	[illegible]
[illegible]		[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Discharge measurements at miscellaneous sites during water year 1971

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		Sandy River basin--Continued				
Hickman Creek continued	Blazed Alder Creek	NW¼SE¼ sec.25, T.1 S., R.7 E., (unsurveyed)	3.80	1964, 1967-70	8-11-69 10- 7-69 11-21-69 5-22-70 7-13-70 11- 9-70 7- 1-71 7-29-71 9-14-71	1.44 8.71 33.5 20.0 2.09 43.7 15.8 2.32 4.02
Part 14		Willamette River basin				
Waldo Lake tunnel	Black Creek	Outlet to unused tunnel from Klovdahl Bay, in sec.36, T.21 S., R.5½ E., (unsurveyed).	-	1937,1940, 1943,1945, 1948, 1950-52, 1956, 1957, 1969-70	9-23-71	.61
Bunchgrass Creek	Smith River	SW¼SW¼ sec.36, T.14 S., R.6 E.	2.95	1963-70	7-21-71	*16.4
French Pete Creek	South Fork McKenzie River	Lat 44°02'33", long 122°11'40", (unsurveyed).	30.6	-	12-10-70 4- 7-71 8-24-71	136 237 *18.3
Part 14		Lower Columbia River basin				
Cedar Creek	Bear Creek	NW¼SE¼ sec.7, T.7 N., R.7 W.	-	1968-70	9-16-71	.25
Do	.... do	SW¼SW¼ sec.1, T.7 N., R.8 W.	-	1968-70	9-16-71	.09
Part 14		Yaquina River basin				
Mill Creek tributary	Mill Creek	NW¼NW¼ sec.27, T.11 S., R.10 W.	2.35	1959-70	1- 6-71 5-11-71	19.2 4.08
Part 14		Tenmile Creek basin				
Eel Creek	Tenmile Creek	NE¼NE¼ sec.13, T.23 S., R.13 W.	11.0	1957-70	10-12-70 11-30-70 1-11-71 3- 1-71 4- 5-71 5-17-71 6-30-71 8-13-71	2.66 25.1 63.9 52.6 58.8 23.3 16.9 4.91
Part 14		South Slough basin				
South Slough (known locally as Bear Creek)	Pacific Ocean	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Part 14		[illegible]				
[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]
Part 14		[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

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